APPENDIX O

TRAFFIC IMPACT STUDY

Final Report

WILTON RANCHERIA FEE-TO-TRUST CASINO PROJECT COUNTY OF SACRAMENTO, CA

TRAFFIC IMPACT STUDY

29 July 2015

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1. INTRODUCTION

Kimley-Horn and Associates, Inc (Kimley-Horn) was retained by Analytical Environmental Services (AES) to prepare a traffic impact study for the Wilton Rancheria's (the "Tribe") proposed fee-to-trust and casino project (the "project") to be located in unincorporated Sacramento County, California. The project includes the transfer of a 282-acre parcel from fee to trust status and subsequent development of a casino, hotel and associated facilities. It is proposed that the project be completed for a 2018 opening year.

This traffic study was prepared based on discussions with, and criteria set forth by, the City of Galt, the City of Elk Grove, County of Sacramento and the California Department of Transportation (Caltrans). The purpose of this study is to address the traffic and transportation effects of the proposed casino and hotel development and to assist the Tribe's environmental consultant in the preparation of an Environmental Impact Statement (EIS) for which the Bureau of Indian Affairs will serve as the Lead Agency for compliance with the National Environmental Policy Act (NEPA).

2. STUDY METHODOLOGY

The background and future forecast assumptions used for this traffic study were based on planned and approved short-term (2018) and long-term (2035) changes to land use and transportation systems as identified in local and regional planning and programming documents, as well as information provided by the Cities of Galt and Elk Grove, County of Sacramento, Caltrans and the Sacramento Area Council of Governments (SACOG). Because none of these agencies' previous planning and project programming documents anticipated a casino and hotel development or its potential impacts, this study evaluates the addition of a casino and hotel and the related impacts to the local and regional transportation system.

2.1 Development Conditions

As part of the required environmental review for the project, a reasonable range of alternatives must be evaluated. This traffic impact study was based on the following development conditions:

- **Existing (2014) Conditions** – Based on current traffic counts, existing roadway geometry, and existing development conditions.
- **No Project Alternative** – Includes near-term (year 2018) and long-term cumulative (year 2035) analyses without the proposed project. Near-term (Year 2018) analysis is based on background traffic volumes and on a street network anticipated to occur by the opening year of the project (2018). Cumulative (Year 2035) analysis is based on traffic forecast data and roadway improvements anticipated to be completed by the year 2035. Year 2035 corresponds to the horizon year of available traffic forecasts and of the current SACOG Metropolitan Transportation Plan (MTP).
- **Alternative A: Proposed Twin Cities Casino Resort** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed Alternative A casino and hotel project at the Twin Cities Site, located west of State Route (SR) 99 near Mingo Road and within the City of Galt's Sphere of Influence. Near-term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the Alternative A project. Cumulative (2035) analysis is based on 2035 traffic forecast data with the Alternative A project, and includes roadway improvements anticipated to be completed by the year 2035.
- **Alternative B: Reduced Intensity Twin Cities Casino** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed reduced-size casino project at the Twin Cities Site, located west of SR 99 near Mingo Road and within the City of Galt's Sphere of Influence. Near-Term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the Alternative B project. Cumulative (2035) analysis is based on

2035 traffic forecast data with the Alternative B project, and includes roadway improvements anticipated to be completed by the year 2035.

- **Alternative C: Retail on the Twin Cities Site** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed Alternative C retail project at the Twin Cities Site, located west of SR 99 near Mingo Road and within the City of Galt's Sphere of Influence. Near-term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the project. Cumulative (2035) analysis is based on 2035 traffic forecast data with the Alternative C project, and includes roadway improvements anticipated to be completed by the year 2035.
- **Alternative D: Casino Resort at Rancheria Site** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed Alternative D casino and hotel project at the Historic Rancheria Site, located in the Wilton community of unincorporated Sacramento County, southeast of the City of Elk Grove. Near-term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the Alternative D project. Cumulative (2035) analysis is based on 2035 traffic forecast data with the Alternative D project, and includes roadway improvements anticipated to be completed by the year 2035.
- **Alternative E: Reduced Intensity Casino at Rancheria Site** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed reduced-intensity Alternative D casino project at the Historic Rancheria Site, located in the Wilton community of unincorporated Sacramento County, southeast of the City of Elk Grove. Near-term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the Alternative E project. Cumulative (2035) analysis is based on 2035 traffic forecast data with the Alternative E project, and includes roadway improvements anticipated to be completed by the year 2035.
- **Alternative F: Casino Resort at Mall Site** – Includes near-term (2018) and long-term cumulative (2035) analyses with the proposed Alternative F casino and hotel project at the Mall Site, located at the site of the previously planned Elk Grove Promenade retail development, northwest of the SR 99/Grant Line Road-Kammerer Road interchange. Near-term (2018) analysis is based on background traffic volumes and traffic generated by the proposed project. Includes a street network anticipated to occur at the time as the completion of the Alternative F project. Cumulative (2035) analysis is based on 2035 traffic forecast data with the Alternative F project, and includes roadway improvements anticipated to be completed by the year 2035.

The study area vicinity and location of each project alternative site is shown in **Figure 1**.

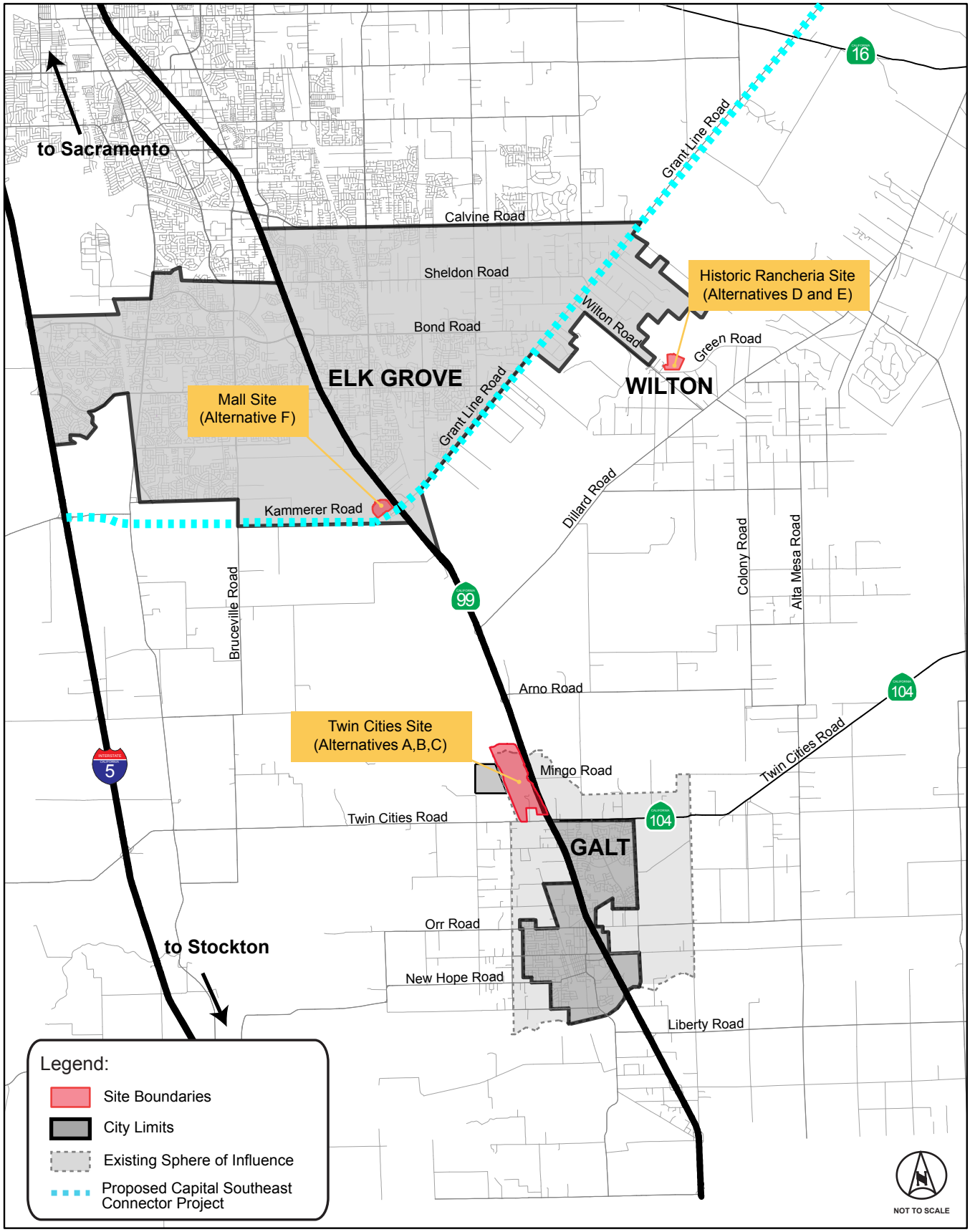

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Figure 1
Study Area Vicinity

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2.2 Study Area

The study area was selected based on the expected travel characteristics of the project, susceptibility of nearby transportation facilities to potential project impacts and based on input from the Cities of Galt and Elk Grove, County of Sacramento and Caltrans. This study includes analysis of intersections, roadway segments and freeway facilities within the vicinity of the proposed project alternatives.

Study Intersections

To assess changes in traffic conditions associated with the proposed project, the following intersections were selected for evaluation in this traffic study:

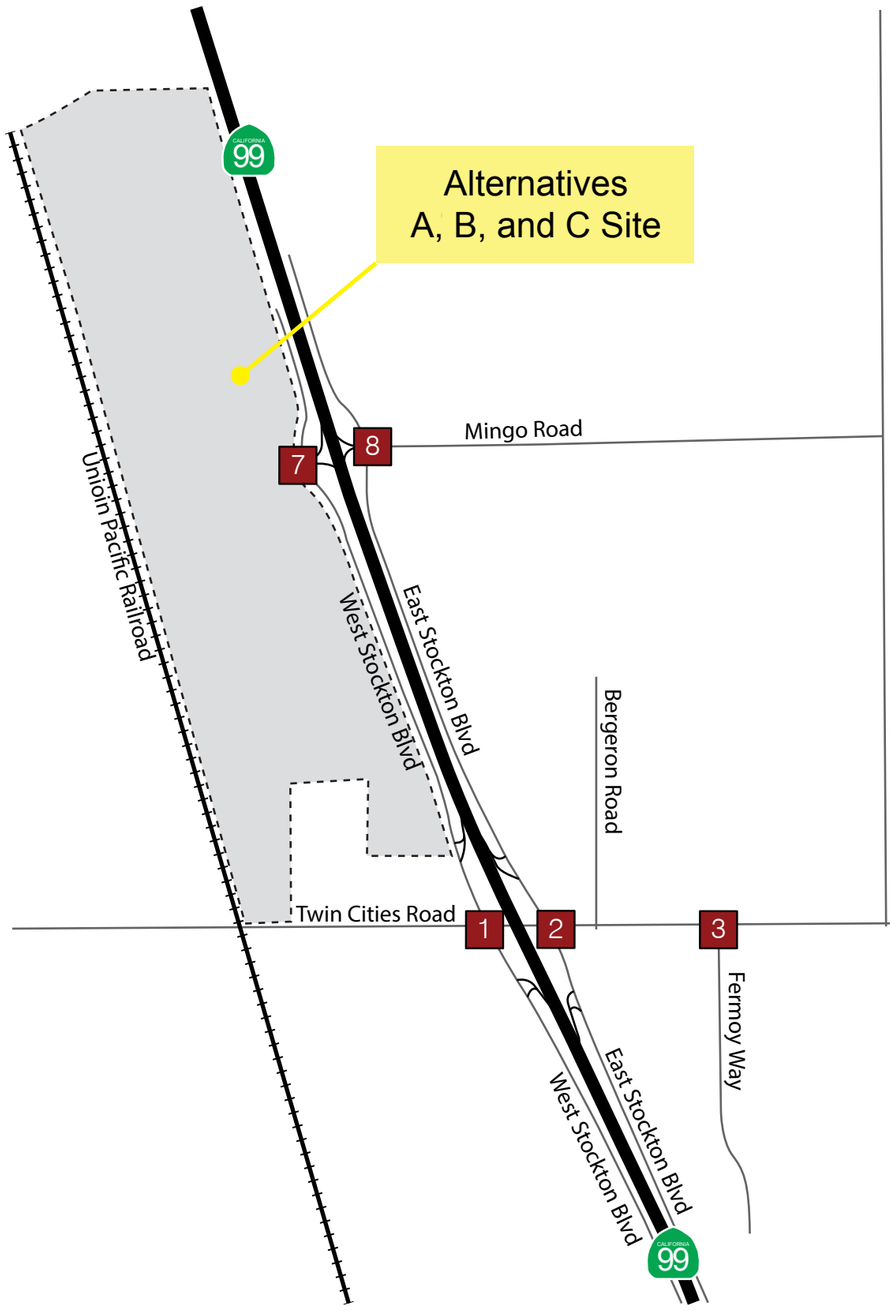
1. Twin Cities Road/West Stockton Boulevard
2. Twin Cities Road (SR 104)/East Stockton Boulevard
3. Twin Cities Road (SR 104)/Fermoy Way
4. Twin Cities Road (SR 104)/Carillion Boulevard
5. Twin Cities Road (SR 104)/Marengo Road
6. Twin Cities Road (SR 104)/Cherokee Lane
7. SR 99 SB Ramps/West Stockton Boulevard (near Mingo Road) [main access driveway for Project Alternative A, B and C at Twin Cities site]
8. SR 99 NB Ramps/East Stockton Boulevard/Mingo Road
9. SR 99 NB Ramps/Grant Line Road
10. SR 99 SB Ramps/Grant Line Road/Kammerer Road
11. Promenade Parkway/Kammerer Road
12. Promenade Parkway/Bilby Road [main access driveway for Project Alternative F at Elk Grove Mall site]
13. Grant Line Road/East Stockton Boulevard/Survey Road
14. Grant Line Road/Bond Road
15. Grant Line Road/Sheldon Road
16. Wilton Road/Green Road
17. Grant Line Road/Wilton Road
18. Wilton Road/Dillard Road
19. Wilton Road/Cosumnes Road

The study intersections are illustrated in **Figure 2.**

Intersection operations are analyzed for Weekday PM and Saturday PM peak hour conditions, as the combination of background traffic and casino traffic are at the highest levels during these periods. Trip generation for tribal gaming facilities generally peaks on Saturday evenings; however, background traffic on adjacent streets is generally higher during peak weekday PM periods. Weekday AM peak hour operations were not included in this study, as weekday AM trip generation is typically much lower than PM periods and existing AM traffic levels within the study area are predominantly lower than during the weekday PM period.

Based on existing traffic volumes and expected trip generation from the Proposed Project, it was determined that the weekday (Thursday) PM and Saturday PM peak periods represent the worst case periods to evaluate.

Wilton Rancheria Casino Project



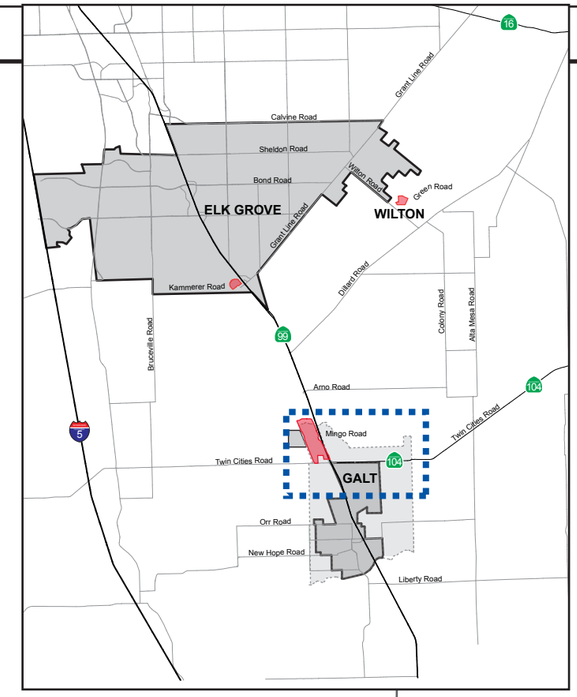


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FIGURE 2

Study Intersection Locations

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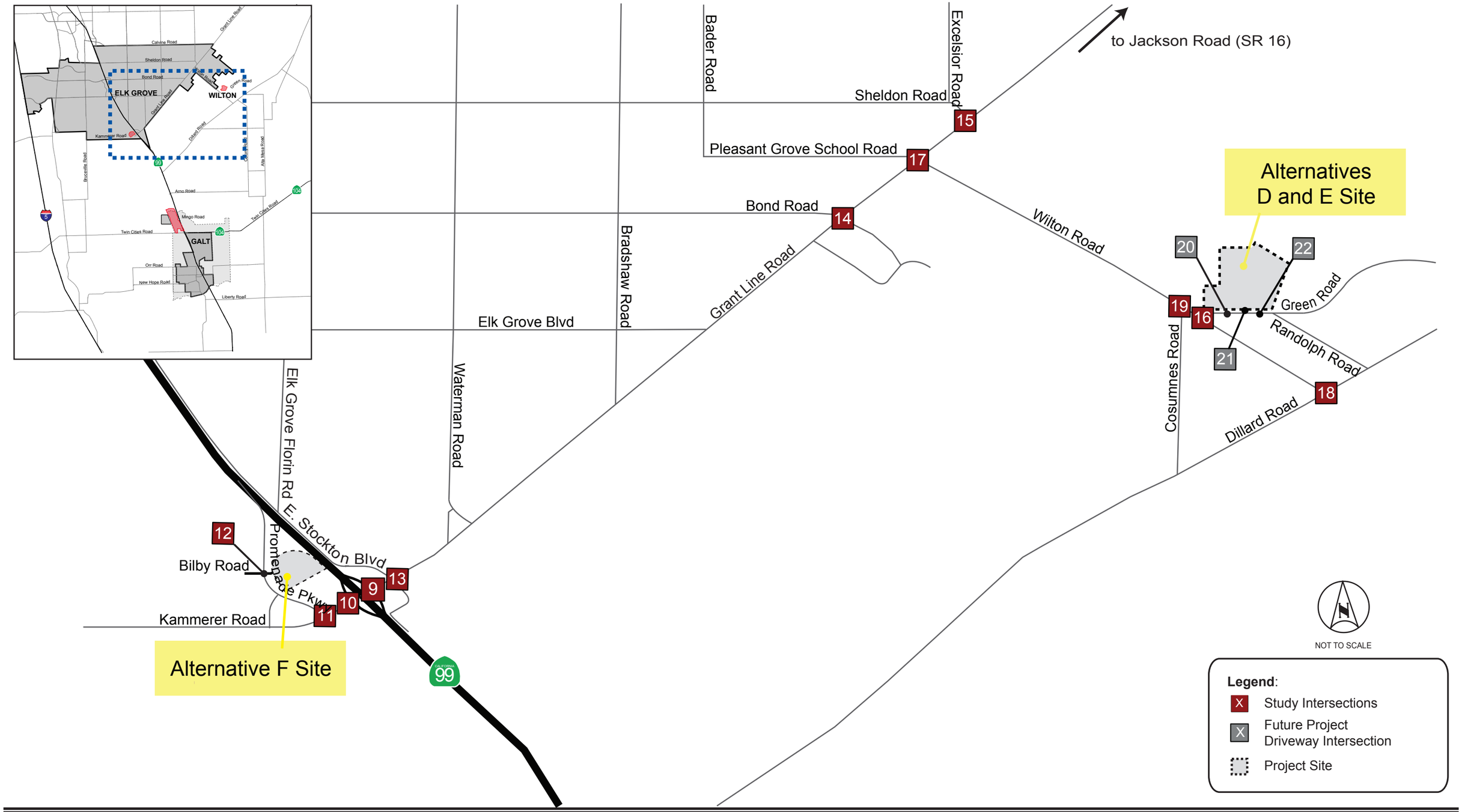

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FIGURE 2

Study Intersection Locations (cont.)

Study Roadways

The following roadway segments were selected for evaluation in this traffic study:

- Twin Cities Road (SR 104) (Fermoy Way to Marengo Road)
- Twin Cities Road (west of SR 99)
- East Stockton Boulevard (between SR 99 NB on-ramp and Mingo Road)
- West Stockton Boulevard (between SR 99 SB off-ramp and SR 99 SB ramps near Mingo Road)
- Promenade Parkway (between Whitelock Parkway and Kammerer Road)
- Kammerer Road (between Bruceville Road and SR 99)
- Grant Line Road (between SR 99 and Jackson Road)
- Dillard Road (between SR 99 and Wilton Road)
- Wilton Road (between Grant Line Road and Dillard Road)
- Green Road (between Wilton Road and Dillard Road)

These roadways represent key locations where project trips are anticipated to be added to the street system and were confirmed with city/county/Caltrans staff for inclusion in the study. For the purposes of this study, roadway segments are analyzed base on daily roadway traffic volumes and capacity thresholds.

Study Freeway Facilities

The following freeway mainline segments and ramps were evaluated in this traffic study:

Mainline Segments

- Mainline SR 99 between Ayers Lane and Walnut Avenue (NB and SB)
- Mainline SR 99 between Walnut Avenue and Twin Cities Road (NB and SB)
- Mainline SR 99 between Twin Cities Road and Mingo Road (NB and SB)
- Mainline SR 99 between Mingo Road and Arno Road (NB and SB)
- Mainline SR 99 between Arno Road and Dillard Road (NB and SB)
- Mainline SR 99 between Dillard Road and Grant Line Road (NB and SB)
- Mainline SR 99 between Grant Line Road and Elk Grove Boulevard (NB and SB)
- Mainline SR 99 between Elk Grove Boulevard and Bond Road (NB and SB)

Ramps

- West Stockton Boulevard/SR 99 SB Off-Ramp
- West Stockton Boulevard/SR 99 SB On-Ramp (north side)
- West Stockton Boulevard/SR 99 SB On-Ramp (south side)
- East Stockton Boulevard/SR 99 NB Off-Ramp
- East Stockton Boulevard/SR 99 NB On-Ramp
- West Stockton Boulevard/SR 99 SB Off-Ramp (near Mingo Road)
- West Stockton Boulevard/SR 99 SB On-Ramp (near Mingo Road)

- East Stockton Boulevard/Mingo Road/SR 99 NB Off-Ramp
- East Stockton Boulevard/Mingo Road/SR 99 NB On-Ramp
- Grant Line Road/SR 99 NB Off-Ramp
- Grant Line Road/SR 99 NB On-Ramp (WB Right)
- Grant Line Road/SR 99 NB On-Ramp (EB Loop)
- Grant Line Road/SR 99 SB Off-Ramp
- Grant Line Road/SR 99 SB On-Ramp (WB Loop)
- Grant Line Road/SR 99 SB On-Ramp (EB Right)

These locations represent key facilities where project trips are anticipated to be added to the freeway system and were confirmed with city/county/Caltrans staff for inclusion in the study. For the purposes of this study, freeway facilities are analyzed for Weekday PM and Saturday PM peak hour conditions.

2.3 Analysis Methodology

Analysis methods for intersections, roadways and freeway facilities are described below. These analysis procedures and assumptions were presented for approval by city/county/Caltrans staff via a Memorandum of Assumptions (dated April 14, 2014) prior to preparation of this study.

Intersections

Operating conditions experienced by drivers are described in terms of Level of Service (LOS), which is a qualitative measure of factors such as delay, speed, travel time, freedom to maneuver, and driving comfort and convenience. Levels of service are represented by a letter scale from LOS A to LOS F, with LOS A representing the best performance and LOS F representing the poorest performance.

All study intersections were analyzed using procedures and methodologies contained in the *Highway Capacity Manual, 2000* (HCM), Transportation Research Board, 2000. These methodologies were applied using Synchro, a traffic operations analysis software package.[1] Where available, the existing signal timings were obtained from the Cities of Galt and Elk Grove and Caltrans for the purposes of this analysis.

The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function

[1] A newer version of the Highway Capacity Manual was published in 2010; however, HCM 2010 was not used for intersection operations analysis due to software errors that prevent the accurate analysis of some shared turn lane configurations present in the study area.

of average control delay for the intersection as a whole. For SSSC intersections, LOS service is reported for the worst approach movement.

Table 1 relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 1 – Intersection Level of Service Definitions

LEVEL OF SERVICE	DESCRIPTION	SIGNALIZED (Avg. control delay per vehicle sec/veh)	UNSIGNALIZED (Avg. control delay per vehicle sec/veh)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50
Source: Highway Capacity Manual, 2010.			

Roadway Segments

Roadway segments were analyzed by comparing average peak hour daily traffic volumes to roadway capacity thresholds presented in the *County of Sacramento Traffic Impact Analysis Guidelines* (2004). **Table 2** shows daily volume thresholds for each LOS category for various roadway classifications.

Table 2 – Level of Service Definitions for Study Roadways

FACILITY TYPE – NUMBER OF LANES	MAX VOLUME FOR GIVEN SERVICE LEVEL				
	LOS A	LOS B	LOS C	LOS D	LOS E
Arterial, moderate access control - 2	10,800	12,600	14,400	16,200	18,000
Arterial, moderate access control - 4	21,600	25,200	28,800	32,400	36,000
Arterial, moderate access control - 6	32,400	37,800	43,200	48,600	54,000
Rural, 2-lane highway - 2	2,400	4,800	7,900	13,500	22,900
Rural, 2-lane road, 24'-36' pavement, no shoulders - 2	1,800	3,600	5,900	10,100	17,000

Source: County of Sacramento, Traffic Analysis Guidelines, July 2004, Table 2-Level of Service Criteria for Roadway Segments. Roadway facility types not used in this analysis are excluded from the above list.

Freeway Facilities

Per Caltrans standards, the freeway mainline segments and ramps were analyzed using procedures from the 2010 HCM. The methodology/software analysis limitations associated with the 2010 HCM for intersection analyses, as discussed previously, do not occur for freeway facilities; thus, the methodologies of the more recent 2010 HCM are used for freeway mainline and ramp analysis. This procedure determines the LOS based on the computed density ranges associated with each LOS category for basic segments and ramp merge/diverge movements. Freeway mainline and ramp LOS calculations were performed using HCS 2010 software.

Within the study area, SR 99 has two general purpose lanes in each direction. In addition, SR 99 has one high occupancy vehicle (HOV) lane starting from just south of Elk Grove Boulevard and extending north through the City of Elk Grove. To account for HOV lane utilization, the freeway analysis is based on the traffic volumes in the general purpose lanes only, which excludes vehicles using the HOV lanes. For this analysis, HOV volumes were estimated based on measured HOV volumes documented in Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (July 2011).

As part of this study, freeway ramp queuing was reviewed at study intersections that included SR 99 ramps.

Table 3 summarizes the level of service definitions for freeway segments and ramp facilities.

Table 3 – Freeway Level of Service Definitions

LEVEL OF SERVICE	Density (Passenger Cars per Mile per Lane)	
	Basic Segments	Ramp Merge/Diverge
A	≤ 11	≤ 10
B	11 – 18	10 – 20
C	18 – 26	20 – 28
D	26 – 35	28 – 35
E	35 – 45	> 35
F	> 45 or V/C ratio > 1.00	Demand exceeds capacity[1]

Source: Highway Capacity Manual, 2010.
(1) Occurs when freeway demand exceeds upstream (diverge) or downstream (merge) freeway segment capacity, or if off-ramp demand exceeds off-ramp capacity.

2.4 Standards of Significance

The following standards of significance were used to determine the significance of project impacts:

LOS Thresholds

City of Galt: Per the City of Galt General Plan - LOS E is considered the acceptable target for streets and intersections within a quarter-mile of State Routes. LOS D is the acceptable target for all other streets and intersections.

City of Elk Grove – Per the City of Elk Grove *Traffic Impact Analysis Guidelines* (2000) – LOS D or better is considered the acceptable target for streets and intersections.

County of Sacramento – Per the General Plan, the County endeavors to: Plan and design the roadway system in a manner that meets Level of Service (LOS) D on rural roadways and LOS E on urban roadways, unless it is infeasible to implement project alternatives or mitigation measures that would achieve LOS D on rural roadways or LOS E on urban roadways.

Caltrans – Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to

determine the appropriate target LOS. For the purposes of this study, the LOS target for Caltrans facilities is:

- Consistent with Caltrans and City policies, a peak hour LOS D has been taken as the minimum standard for all State highway facilities, except for intersections and segments along SR 104, which will be analyzed with an LOS E acceptable operations threshold.[2]

Significance Criteria

The significance criteria summarized below were referenced from applicable city/county/Caltrans policies and/or traffic impact analysis guidelines. These criteria are consistent with other recent traffic impact studies that have been prepared for projects within these jurisdictions and were confirmed with city/county/Caltrans staff for use in this study.

Intersections

An impact to a study intersection is considered significant, and mitigation measures must be identified when:

- Traffic generated by the project would cause a signalized intersection operating at acceptable LOS (as defined above) to degrade to an unacceptable level.
- Cause an unsignalized intersection operating at acceptable LOS to degrade to an unacceptable level and also cause the intersection to satisfy a traffic signal warrant.
- The level of service at a signalized or unsignalized intersection without the project is unacceptable and the project generated traffic increases the average delay by more than five (5) seconds and the volume-to-capacity (V/C) ratio by 0.05 or more.

Roadway Segments

An impact to a study roadway segment is considered significant, and mitigation measures must be identified when:

- Traffic generated by the project would cause a roadway segment operating at acceptable LOS to degrade to an unacceptable level (as defined above).
- The level of service without the project is unacceptable and the project generated traffic increases the V/C ratio by 0.05 or more.

[2] The Transportation Corridor Concept Report for Route 104 (Caltrans, 2012) identifies the LOS for the segment of SR 104 within the City of Galt (Twin Cities Road from SR 99 to Marengo Road) as LOS F for existing conditions and a target of LOS E for the 20-year concept scenario. For the purposes of this project, the target LOS for SR 104 within the City of Galt is to maintain LOS E.

Freeway Facilities

For freeway facilities, an impact is considered significant, and mitigation measures must be identified when:

- Traffic generated by the project would cause a facility operating at acceptable LOS (as defined above) to degrade to an unacceptable level.
- The level of service without the project is unacceptable and the project generated traffic increases density by more than five percent (5%).

Bicycle Facilities

The impact is significant if the project will:

- Inhibit bicycle use, or change the designation of the existing facility,
- Eliminate existing bicycle facilities, or
- Prevent the implementation of a proposed or planned bicycle facility.

Pedestrian Facilities

The impact is significant if the project will:

- Inhibit pedestrian activity,
- Eliminate existing pedestrian facilities, or
- Prevent the implementation of a proposed or planned facility.

3. EXISTING CONDITIONS

3.1 Existing Roadways, Freeway Segments, and Ramps

Below is a description of the roadway facilities, freeway segments, and ramps included in the traffic impact study.

Roadway Facilities

Twin Cities Site

Twin Cities Road (SR 104) provides east-west regional access to southern Sacramento County and northern Galt. The road begins as Twin Cities Road at the Sacramento River and becomes SR 104 at its connection to SR 99. Twin Cities Road/SR 104 connects I-5, SR 99, the City of Galt, and southern Amador County. Twin Cities Road is currently configured as a two-lane arterial with a two-way left turn lane from East Stockton Boulevard to Park Terrace Drive. The segment of Twin Cities Road between Christensen Road and Cherokee Lane is designated as a future six-lane expressway in the 2030 Galt General Plan.

East Stockton Boulevard and *West Stockton Boulevard* are two-lane frontage roads that run along the east and west sides of SR 99, respectively. These roadways run from north of Twin Cities Road to south of Walnut Avenue and provide direct access to SR 99 immediately north of Twin Cities Road via hook ramps as part of the SR 99/Twin Cities Road interchange. The posted speed limit is 45 mph south of Twin Cities Road for both East Stockton and West Stockton. North of Twin Cities there are no speed limit signs, therefore per California Vehicle Code, the speed limit is assumed to be 55 mph.

Cherokee Lane is a two-lane collector roadway that runs north/south and provides access to rural residential and agricultural uses. Cherokee Lane provides a north/south connection between the arterials of Twin Cities Road and Simmerhorn Road.

Mingo Road is a two-lane road that runs east/west between McKenzie Road and Stockton Boulevard/SR 99. This approximately one-mile segment of road provides access to northbound SR 99 and serves very low density residential and agricultural uses. There is currently no roadway connection spanning SR 99 at Mingo Road; thus, access is limited between the east and west sides of the freeway at this location.

Fermoy Way is a two-lane residential collector with a posted speed limit of 30 mph. This residential collector is bounded by commercial uses along the northernmost portion of the road and to single family residential uses south of the commercial uses. Additionally, Fermoy Way provides an alternative route between Walnut Avenue and Twin Cities Road, via Adare Way and Emerald Vista Drive.

Carillion Boulevard is a north-south running roadway that bisects the northeast area of Galt bounded which is bounded by SR 99, Twin Cities Road, Marengo Road, and Simmerhorn Road. The roadway is a divided four-lane arterial with a posted speed limit of 45 mph.

Marengo Road is a two-lane north/south running roadway that connects the arterials of Twin Cities Road and Simmerhorn Road within the City of Galt. The roadway has a posted speed limit of 45 MPH and provides access primarily to single family residential uses on the west, and agricultural uses to the east.

Wilton Site

Grant Line Road is a major north/south roadway that extends from SR 99 to White Rock Road in unincorporated Sacramento County. Between Disposal Lane and the SR-99 southbound off-ramp intersection, Grant Line Road is a six-lane roadway with a posted speed limit of 55 mph. East of Disposal Lane, Grant Line Road becomes a two lane road with a posted speed limit of 35 MPH. The roadway is designated as an eight-lane arterial between SR 99 and Bradshaw Road and as a six-lane arterial east of Bradshaw Road. As part of the planned Capital SouthEast Connector Project, Grant Line Road will ultimately be widened to a six-lane configuration east of SR 99 to Bradshaw Road, and to a four-lane configuration from Bradshaw Road to Jackson Road.

Wilton Road is a northwest/southeast running two-lane roadway that extends from Dillard Road to the south to Grant Line Road to the north. Wilton Road spans a total of approximately 3.2 miles and has a posted speed limit of 55 MPH.

Dillard Road is a two-lane roadway running northeast/southwest between SR-99 and Jackson Road. Dillard Road has a posted speed limit of 55 MPH and is bordered primarily by agricultural and very low density single family residential uses.

Elk Grove Site

Grant Line Road – See above description.

Kammerer Road is an east–west road extending from Bruceville Road to West Stockton Boulevard. Kammerer Road is two lanes from just west of Lent Ranch Parkway to Bruceville Road. Kammerer Road is part of the Capital SouthEast Connector project and is designated in the City of Elk Grove General Plan as an eight-lane arterial from SR 99 to Lent Ranch Parkway and as a six-lane arterial from Lent Ranch Parkway to Franklin Boulevard. Planned improvement plans include widening to six lanes west to Bruceville Road and construction of a new four-lane Kammerer Road extension from Bruceville Road to I-5 (at Hood Franklin Interchange).

East Stockton Boulevard is a north/south roadway that extends from south of Grant Line Road to Elk Grove Boulevard where it turns into Emerald Vista Drive. East Stockton Boulevard has three lanes (two northbound and one southbound) for approximately 1,200 feet south of Elk Grove Boulevard and two lanes to the south.

Freeway Segments

State Route 99 (SR 99) is the primary interregional route which serves the City of Galt and Elk Grove. The freeway passes through the San Joaquin Valley and Central Valley, running approximately parallel to Interstate 5 (I-5) between the City of Red Bluff and the City of Bakersfield. Major communities serviced by SR-99 include the Cities of Stockton, Sacramento, Modesto, Yuba City, Merced, and Fresno. The freeway is a major commuter and truck travel route. SR-99 is a four-lane freeway within the study area and forms interchanges with Walnut Avenue, Twin Cities Road (SR 104), Mingo Road, Arno Road, Dillard Road, Grant Line Road and Elk Grove Boulevard. Starting just south of Elk Grove Road and extending to the north, a single HOV lane is provided in each direction.

- The SR 99 and West Stockton Boulevard SB on-ramp is a one-lane hook ramp just south of SR-104.
- The SR 99 NB and East Stockton Boulevard off-ramp is a one-lane hook ramp just south of SR-104.
- The SR 99 NB on-ramp at East Stockton Boulevard is a one-lane hook ramp located just north of SR-104.
- The SR 99 SB on-ramp at West Stockton Boulevard is a one-lane hook ramp located just north of SR-104.
- The SR 99 SB off-ramp at West Stockton Boulevard is a one-lane hook ramp located just north of SR-104.
- The SR 99 SB off-ramp at West Stockton Boulevard near Mingo Road is a one-lane ramp.
- The SR 99 SB on-ramp at West Stockton Boulevard near Mingo Road is a one-lane ramp.
- The SR 99 NB off-ramp at Mingo Road and just east of Stockton Boulevard is a one-lane ramp.
- The SR 99 NB on-ramp at Mingo Road and just east of Stockton Boulevard is a one-lane ramp.
- The SR 99 NB off-ramp at Grant Line Road is a two-lane ramp that expands to three lanes as it nears its intersection with Grant Line Road.

The SR 99 NB on-ramp at Grant Line Road is a two-lane loop ramp for those traveling eastbound along Grant Line Road and wishing to access SR 99. From the westbound direction along Grant Line Road, access to SR 99 is provided via a two-lane ramp. At each of these locations, one of the two on-ramps is designated as an HOV lane.

The SR 99 SB off-ramp at Grant Line Road is a two-lane ramp that expands to three lanes approaching the intersection at Grant Line Road.

The SR 99 SB on-ramp at Grant Line Road is a two-lane loop ramp for those traveling westbound along Grant Line Road and wishing to access SR 99. From the eastbound direction along Grant Line Road, access to SR 99 is provided via a two-lane ramp. Each of the SB on-ramps has one of the two lanes designated as an HOV lane.

3.2 Existing Lane Configurations and Traffic Control

Existing intersection lane configurations and traffic control at study intersections are illustrated in **Figure 3**. Traffic signals are located at most study intersections with freeways and arterial streets; whereas, study intersections with minor roadways near the proposed project sites are often unsignalized. The figure also shows the length of the right and left turn bays when present.

3.3 Existing Traffic Volumes

Weekday roadway average daily traffic (ADT) volumes, weekday PM peak hour intersection turning movement volumes and SR 99 ramp volumes for locations within the City of Galt were provided by the City of Galt, as documented in a recent memo prepared by Omni-Means consultants for the City's Eastview Specific Plan development project (memo dated April 10, 2014). As documented in the memo provided by the City, due to on-going construction at the Twin Cities Road interchange, new traffic counts were not collected for study intersections #1, #2, and #3 (refer to discussion *Study Area* section of this report or **Figure 2** for intersection numbering). For those locations, the volumes provided by the City included adjustments applied to 2009 traffic to reflect observed regional and historical growth rates through year 2014. Weekday volumes for other intersections within Galt were collected by Omni-Means during February 2014.[3] It should be noted that the existing weekday traffic volumes provided by the City of Galt did not reflect traffic added to the street network from the Galt Wal-Mart project, which opened in late spring 2014. Other existing conditions traffic data for this study was collected after the Galt Wal-Mart was completed and open for business. To develop consistency with the existing traffic data, and to provide a generally conservative analysis, the existing weekday traffic volumes along Twin Cities Road within vicinity of the Wal-Mart site (intersections #1-#6) were adjusted to reflect the additional traffic added to the street network by Wal-Mart project. The weekday PM peak hour trips

[3] Todd Tregenza (Omni-Means) technical memorandum to Gwen Owens (City of Galt). 10 April, 2014.

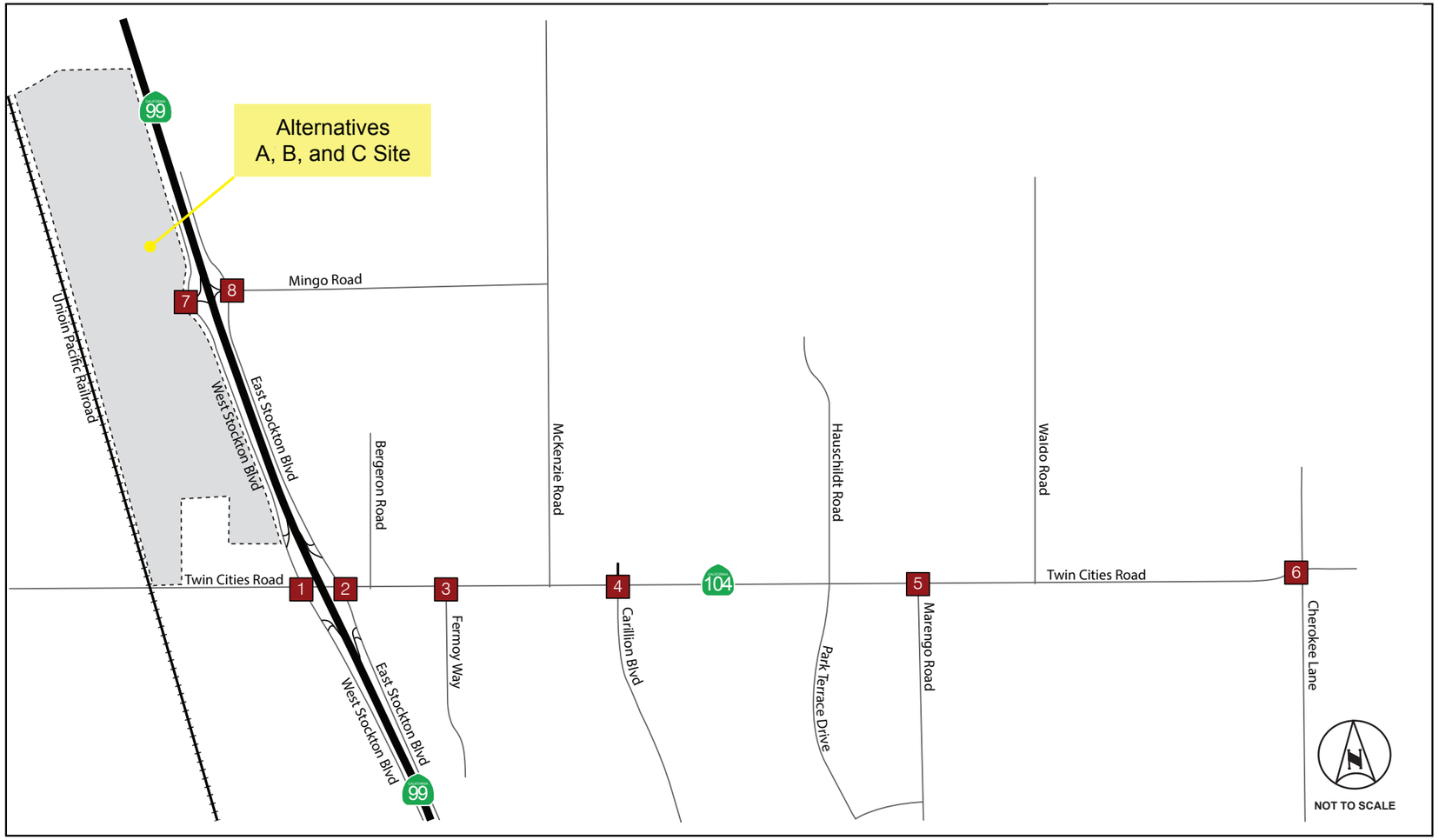
estimated to be added to the street network by the Wal-Mart project were referenced from the Galt Wal-Mart EIR traffic impact study.

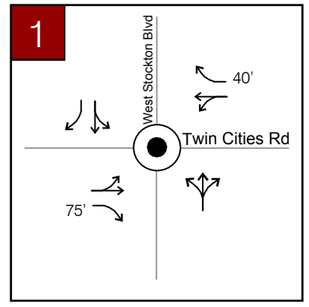
Saturday PM peak period (4:00-7:00 PM) intersection turning movement volumes, roadway ADT volumes and SR 99 ramp volumes within the City of Galt and at the SR 99 ramp intersections near Mingo Road were collected by Kimley-Horn during early June 2014. This traffic data reflects conditions after opening of the Galt Wal-Mart; thus, no adjustments were required for the existing Saturday traffic volumes.

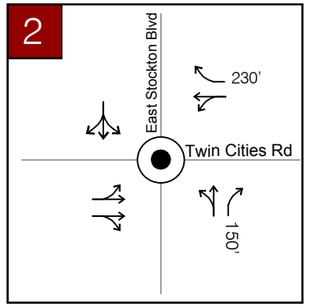
Weekday and Saturday PM peak period (4:00-7:00 PM) intersection turning movement volumes, roadway ADT volumes and SR 99 ramp volumes at all other study locations were collected by Kimley-Horn during April 2014.

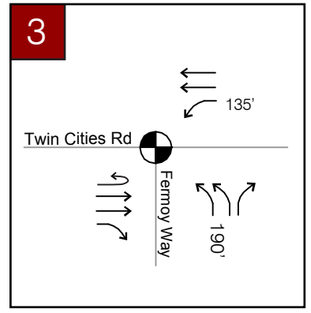
Current (2014) freeway mainline traffic count data was referenced from published Caltrans data and available through the Caltrans Performance Measurement System (PeMS).

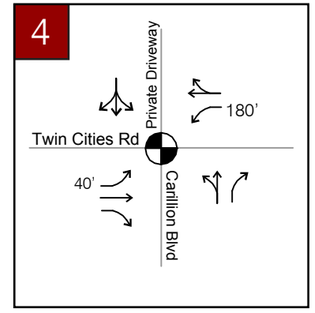
For locations where detailed data was collected, traffic count data is provided in the **Appendix**. The existing peak-hour intersection turning movement volumes are shown in **Figure 4** and **Figure 5**.

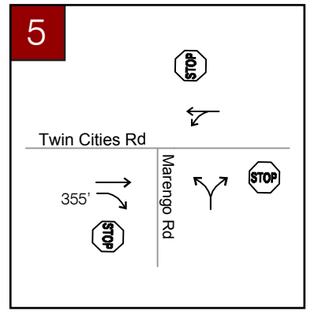


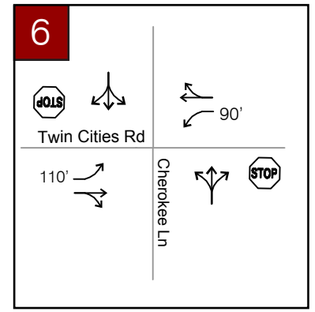


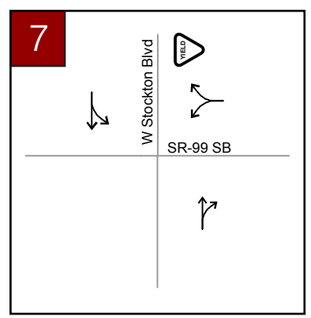


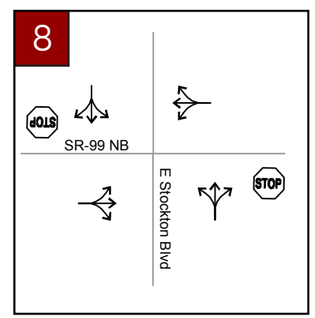












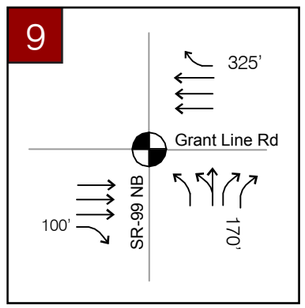
Legend:

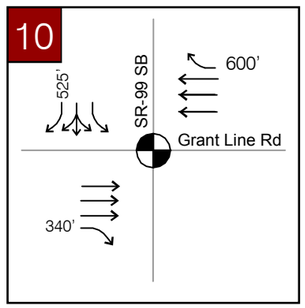
- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- Traffic Signal
- STOP — Stop Sign
- Roundabout
- XX' Turn Pocket Storage Length
- YIELD — Yield Sign

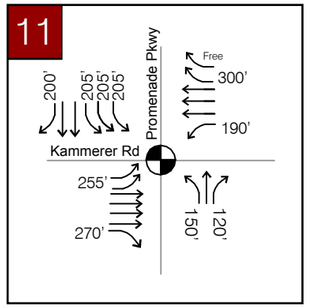
Kimley»Horn

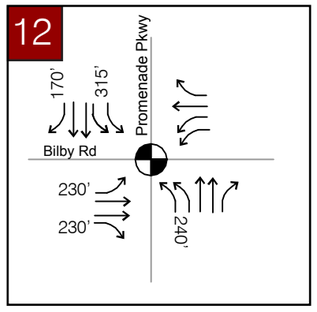
Figure 3

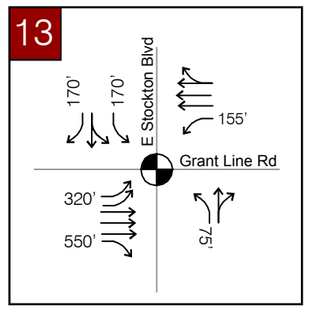
Intersection Lane Geometry and Traffic Control

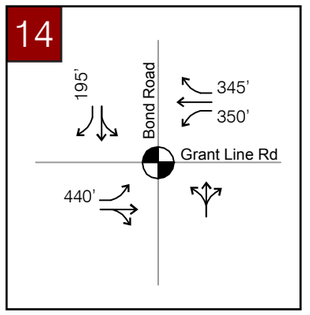


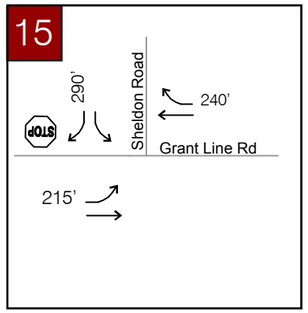


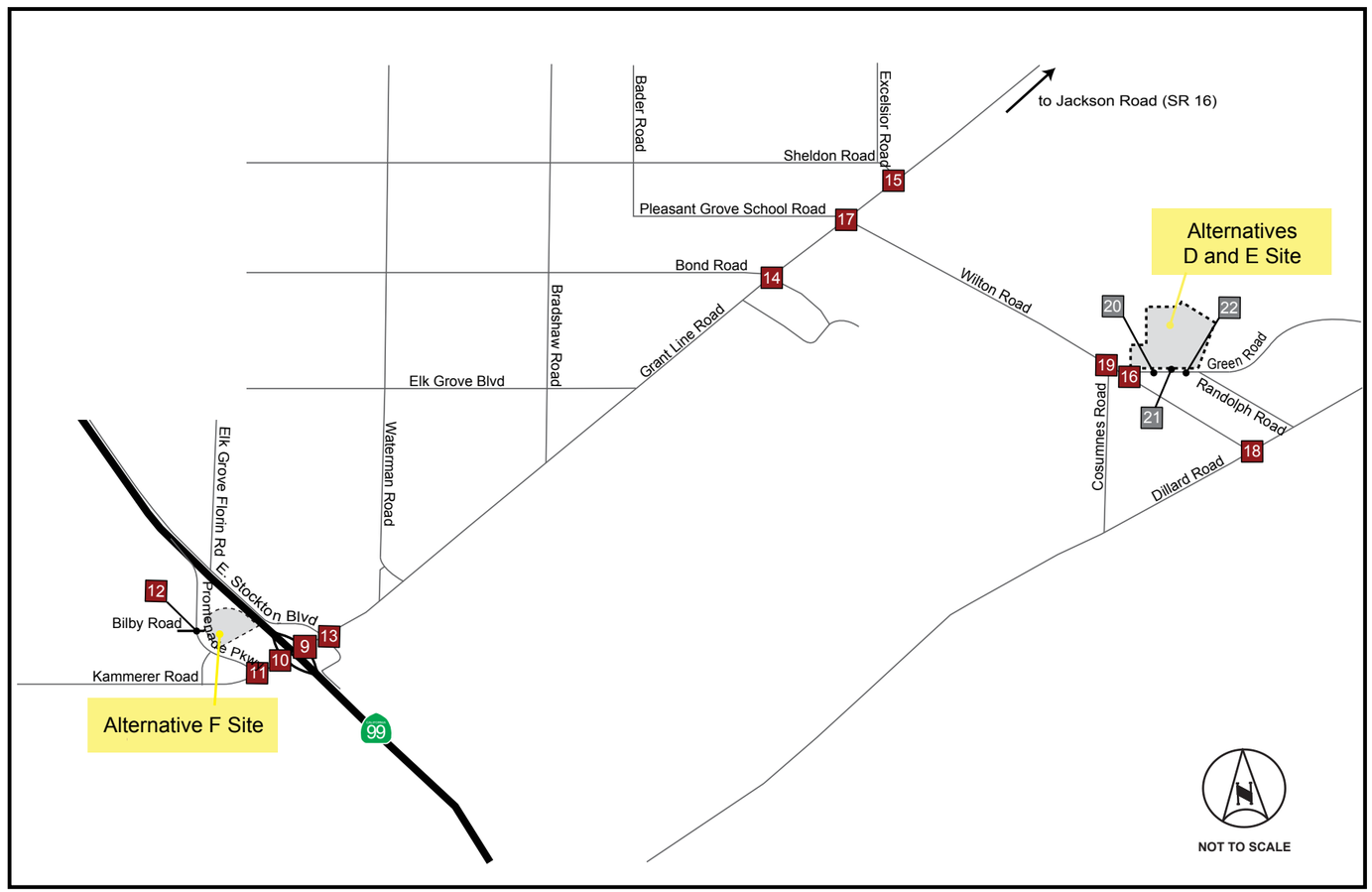


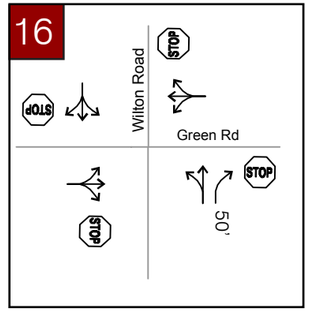


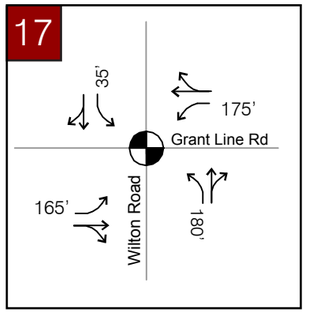


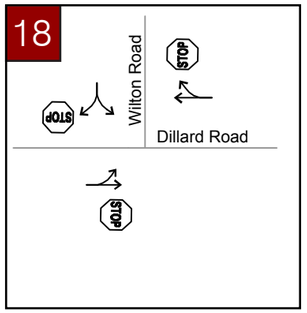


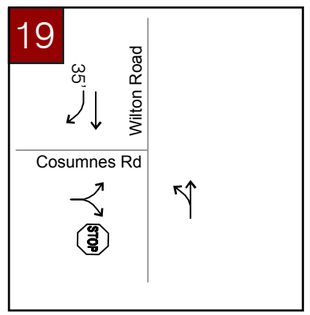


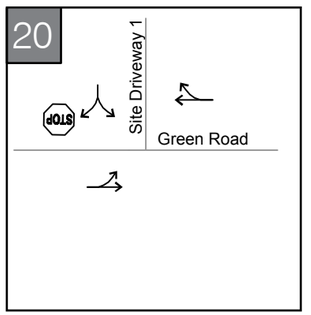


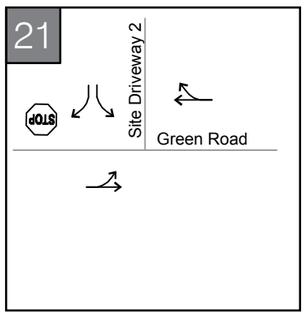


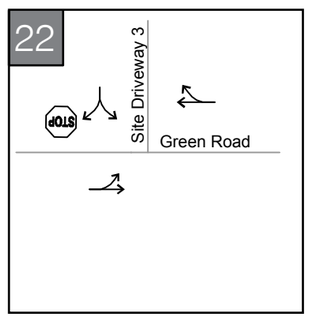












Legend:

- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- XX' — Turn Pocket Storage Length
- Traffic Signal
- STOP — Stop Sign

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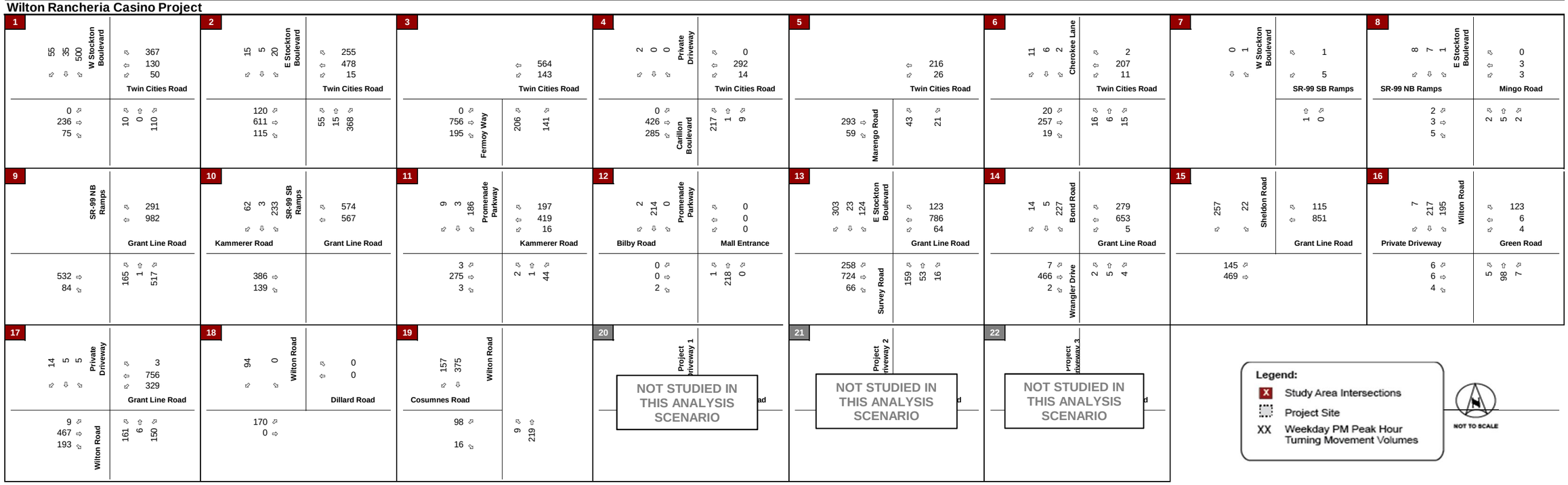
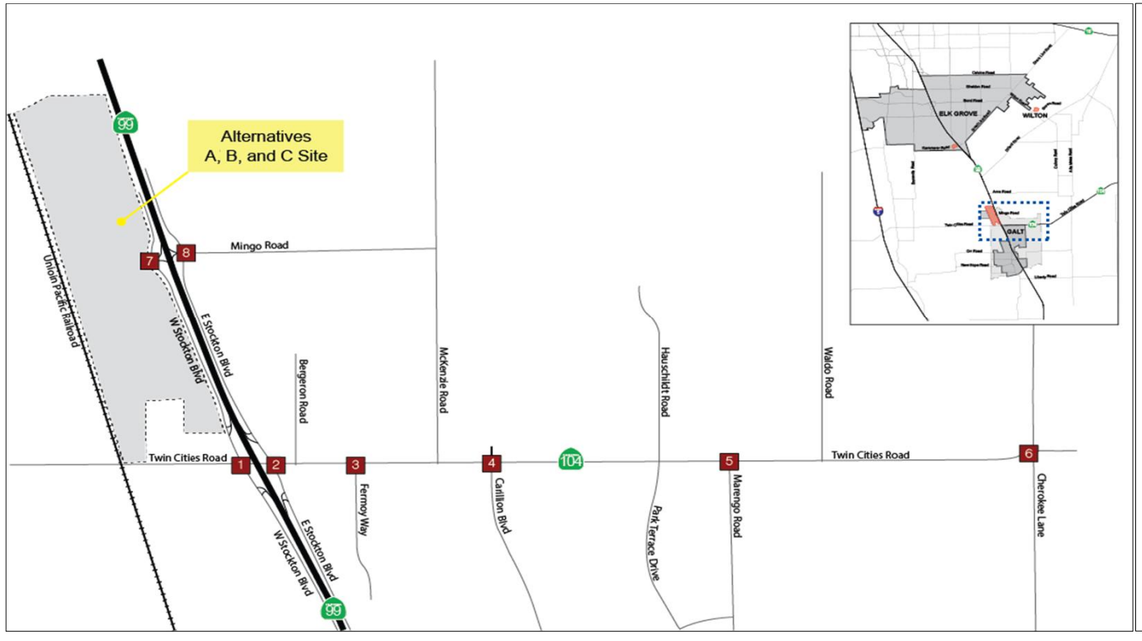
Figure 3

Intersection Lane Geometry and Traffic Control (cont.)

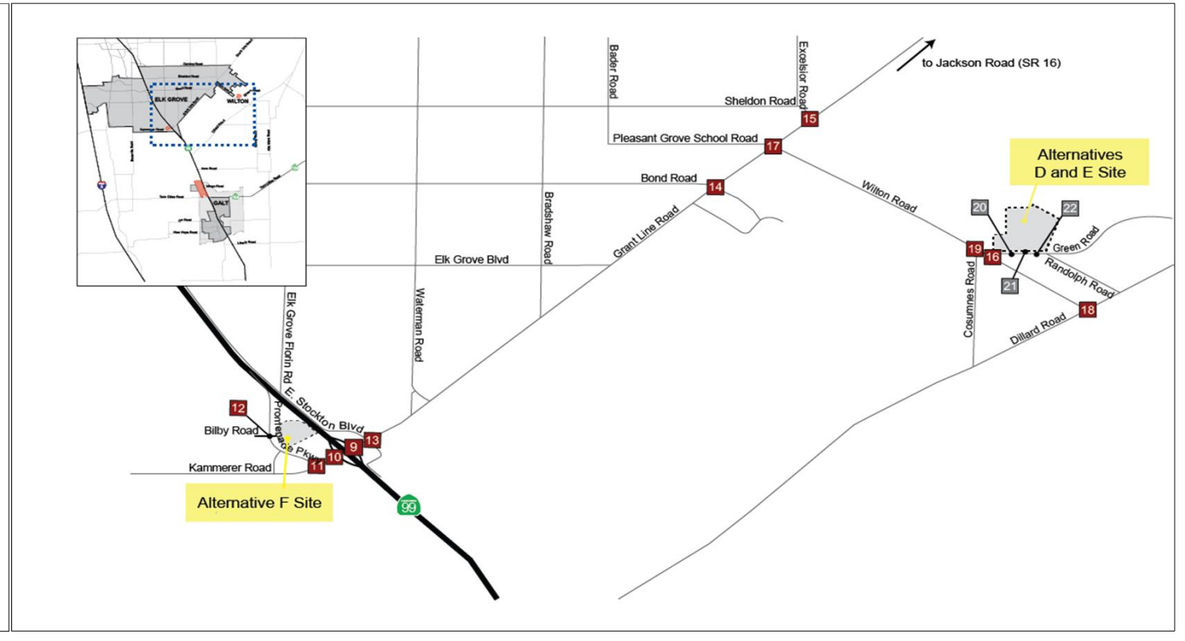
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)



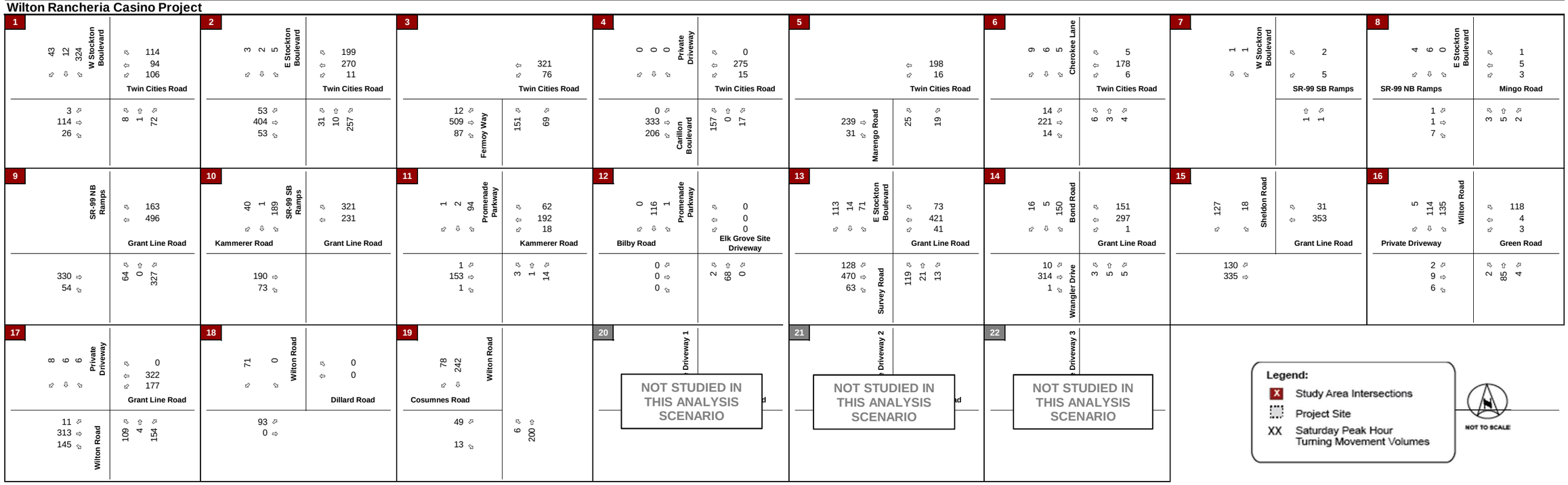
Kimley»Horn

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]Ex-PM Figure

FIGURE 4

EXISTING (2014) WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



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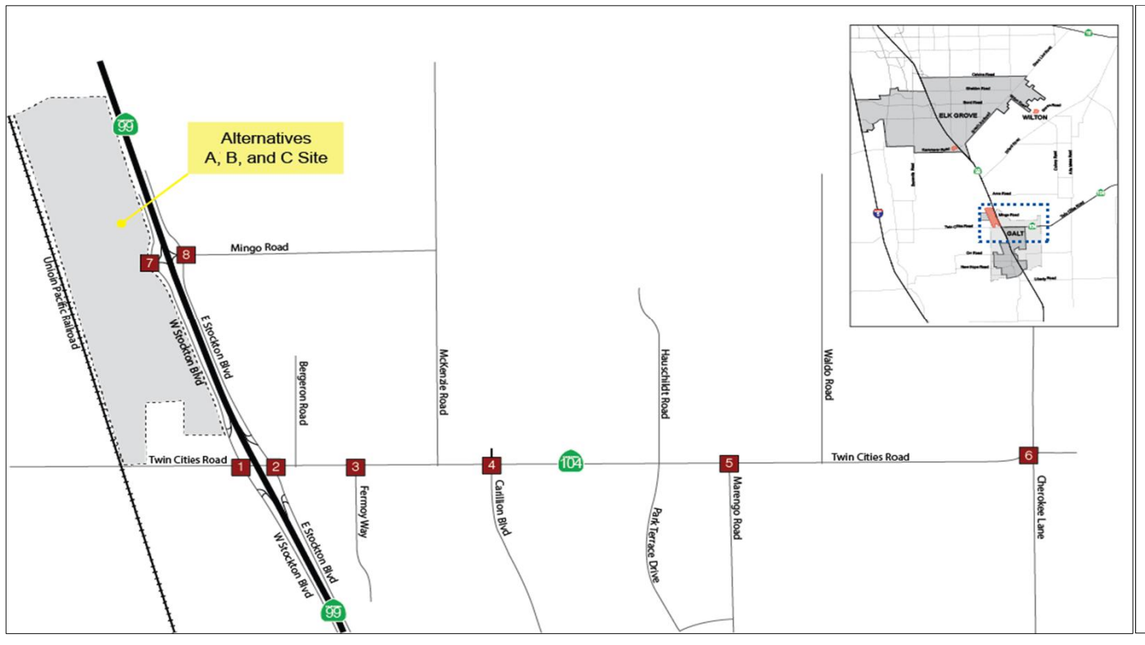

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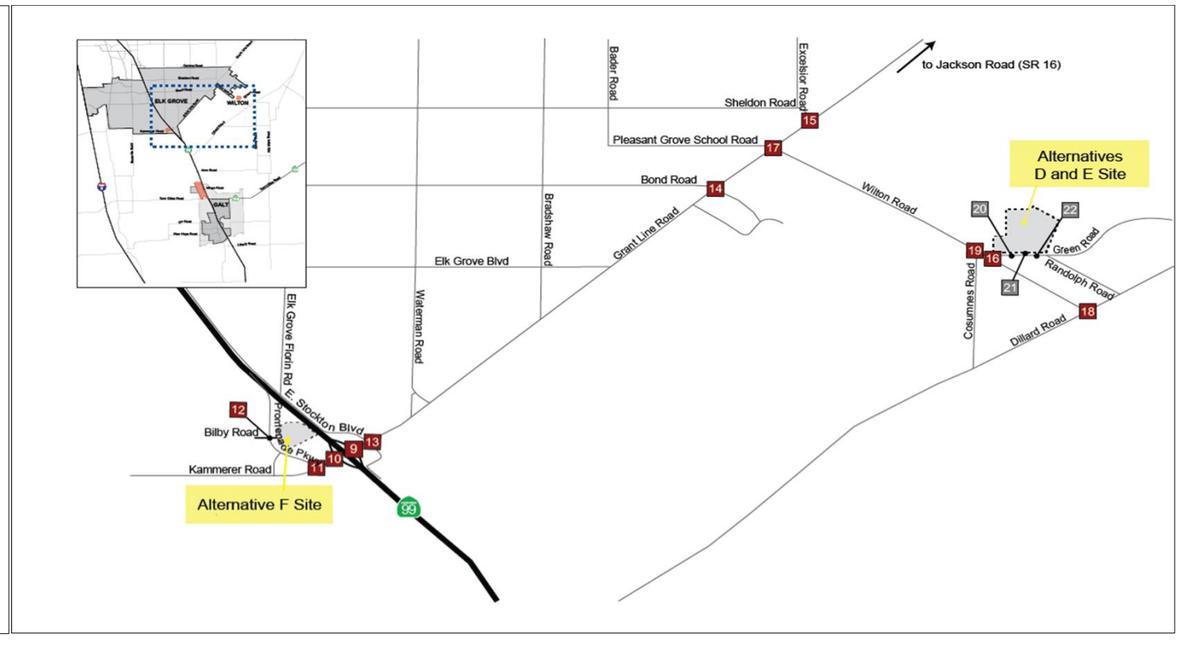

Kimley»Horn

FIGURE 5

EXISTING (2014) SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

3.4 Existing Bicycle and Pedestrian Facilities

Twin Cities Site

Currently no pedestrian or bicycle facilities exist in the vicinity of the Twin Cities project site. The closest pedestrian facilities are located south of the project area where West Stockton Boulevard intersects with Twin Cities Road. The current City of Galt General Plan Circulation Element states that sidewalks are required of all new development in Galt.

Historic Rancheria Site

In the vicinity of the Historic Rancheria project site there are no existing pedestrian or bicycle facilities.

Mall Site

In the immediate vicinity of the Elk Grove Mall site, Class II (on-street bike lanes with signing and striping) exist on several major roadways. For the entirety of its length, Promenade Parkway has Class II bike lanes serving both directions of travel (north and south). Similarly, Class II bike lanes are located on either side of Kammerer Road from just west of Promenade Parkway to just east of Survey Road. Additionally, Class II bike lanes are provided on Elk Grove Florin Road, and along portions of Elk Grove Boulevard and East Stockton Boulevard. Bicycle facilities do not exist along many of the roadways surrounding the study area due to the industrial nature of the area.

The majority of local roads in the immediate vicinity of the project site provide pedestrian facilities including sidewalks and crosswalks at signalized intersections. Promenade Parkway and Kammerer Road/Grant Line Road between Promenade Parkway and Survey Road provide sidewalks and crosswalks at signalized intersections. In general, sidewalks are provided within the study area along most developed properties and crosswalks at signalized intersections.

3.5 Existing Transit Service

Twin Cities Site

Transit service within The City of Galt includes four “Dial-A-Ride” bus routes that operate from 7:00 AM to 6:30 PM, Monday through Friday. In the vicinity of the Twin Cities project study area, South County Transit (SCT/LINK) Route 3 travels between Lakepark Senior Center and Galt City Hall via Twin Cities Road, Fermoy Way, East Stockton Boulevard, and North Lincoln Way. SCT/LINK offers service along the SR 99 corridor by providing direct intercity service connecting Galt with the Cities of Lodi, Elk Grove and Sacramento. The SR 99 Route operates Monday thru Friday, with hourly service all day from 5:20 AM to 7:20 PM. Service in the City of Lodi SCT/LINK now offers direct bus service from the Delta to Lodi. This route also provides direct service to Galt with connecting service via SR 99 to Elk Grove and Sacramento. Additionally, SCT/LINK operates a Dial-a-Ride system that provides curb-to-curb service that requires advance reservations.

Historic Rancheria Site
There are no existing transit services that extend to the Historic Rancheria site.

Mall Site
The City of Elk Grove operates fixed-route bus service (e-tran) in the vicinity of the project study area. Kammerer Road and the southern portion of Grant Line Road are not served by any stops although, numerous transit routes and stops are located west of, and in close proximity to Grant Line Road. The routes that run closest to the Elk Grove project site included those along East Stockton Boulevard (routes 60 and 162), Elk Grove Florin (routes 57, 59, 60 and 162), and Elkmont Way (routes 60 and 162). A number of these services operate only during the peak hours or have lengthy headways. No existing transit services currently extend directly to the potential Elk Grove Mall project site.

3.6 Existing Level of Service at Study Intersections

Traffic operations were evaluated under existing traffic conditions for Weekday and Saturday PM peak hour conditions. Results of the analysis are presented in **Table 4**, along with the jurisdictional standard for acceptable level of service (as previously described on in the Standards of Significance section). Additional detail of the analysis is provided in the **Appendix**. Results of the analysis indicate that the following study intersection currently operates at unacceptable levels of service based on established significance criteria:

- Grant Line Road/Sheldon Road W (Weekday PM)

It should be noted that Intersection #7 (West Stockton Boulevard/SR 99 SB Ramps at Mingo Road) will serve as the primary project access driveway for Project Alternatives A, B and C at the Twin Cities site. Intersection #12 (Promenade Parkway/Bilby Road) will serve as the primary access driveway to Project Alternative F at the Elk Grove Mall site.

Table 4 – Existing Intersection Levels of Service

#	Intersection	Intersection Jurisdiction	Intersection Control	LOS Target	Critical Approach/ Movement[2]	PM Peak		SAT Peak	
						LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Caltrans	Roundabout	D	-	B	10.5	A	6.9
2	E Stockton Blvd/Twin Cities Rd	Caltrans	Roundabout	D	-	B	13.8	A	7.4
3	Twin Cities Rd/Fermoy Way	Caltrans	Signal	D	-	B	12.3	A	9.7
4	Twin Cities Rd/Carillon Blvd	Caltrans	Signal	D	-	B	11.6	A	8.7
5	Twin Cities Rd/Marengo Rd	Caltrans	AWSC	D	-	A	9.8	A	9.0
6	Twin Cities Rd/Cherokee Ln	Caltrans	SSSC	D	NB	B	12.6	B	11.9
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Caltrans	SSSC	D	WB	A	8.6	A	8.7
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	Caltrans	SSSC	D	NBT	A	9.1	A	9.0
9	SR-99 NB Ramps/Grant Line Rd	Caltrans	Signal	D	-	A	9.0	A	6.5
10	SR-99 SB Ramps/Grant Line Rd	Caltrans	Signal	D	-	B	13.0	A	7.7
11	Promenade Parkway/Kammerer Rd	City of Elk Grove	Signal	D	-	B	19.0	B	15.2
12	Promenade Parkway/Bilby Rd	City of Elk Grove	Signal	D	-	A	7.7	A	1.5
13	Grant Line Rd/E Stockton Blvd	City of Elk Grove	Signal	D	-	D	42.2	C	25.2
14	Grant Line Rd/Bond Rd	City of Elk Grove	Signal	D	-	C	21.5	B	17.5
15	Grant Line Rd/Sheldon Rd	City of Elk Grove	SSSC	D	SBL	**E**	**45.7**	B	12.0
16	Wilton Rd/Green Rd	County of Sacramento	AWSC	D	-	B	10.9	A	8.7
17	Grant Line Rd/Wilton Rd	City of Elk Grove	Signal	D	-	D	41.4	C	21.5
18	Wilton Rd/Dillard Rd	County of Sacramento	AWSC	D	-	A	8.0	A	7.4
19	Wilton Rd/Cosumnes Rd	County of Sacramento	SSSC	D	EB	B	15.0	B	11.7
20	Green Road/Project Driveway 1	County of Sacramento	INTERSECTION DOES NOT CURRENTLY EXIST						
21	Green Road/Project Driveway 2	County of Sacramento	INTERSECTION DOES NOT CURRENTLY EXIST						
22	Green Road/Project Driveway 3	County of Sacramento	INTERSECTION DOES NOT CURRENTLY EXIST						

Notes:
1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

3.7 Existing Conditions Traffic Signal Warrant Analysis

Traffic signals may be justified when traffic operations fall below acceptable thresholds and when one or more signal warrants are satisfied. A planning-level assessment of the need for traffic signalization was conducted for the unsignalized study intersections using Warrant 3 (Peak Hour) from the *California Manual on Uniform Traffic Control Devices* (CAMUTCD), 2012. A warrant is a set of criteria which can be used to define the relative need for, and appropriateness of, a particular traffic control device (i.e., STOP or YIELD sign, traffic signal, etc.). Warrant 3 (Peak Hour) is generally the first warrant to be satisfied. The warrant applies to traffic conditions during a one hour peak that are sufficiently high such that minor street traffic experiences excessive delay in entering and crossing the street.

Results of the analysis showed that the following intersection currently satisfies Warrant #3:

- Grant Line Road/Sheldon Road (Weekday PM)

3.8 Existing Level of Service at Roadway Segments

Study roadway segment levels of service were evaluated based on existing Weekday and Saturday average daily traffic volumes. **Table 5** summarizes the existing roadway segment levels of service.

As shown in **Table 5**, the following roadway segments operate at unacceptable levels of service for existing conditions:

- Grant Line Road – East Stockton Boulevard to Waterman Road (Weekday)
- Grant Line Road – Waterman Road to Bradshaw Road (Weekday)
- Grant Line Road – Bradshaw Road to Wilton Road (Weekday)
- Grant Line Road – Wilton Road to Calvine Road (Weekday)
- Grant Line Road – Calvine Road to Jackson Road (Weekday)

Table 5 – Existing Roadway Segment Levels of Service

Roadway	Segment Extents	Target LOS	No. Lanes	Weekday		Saturday	
				ADT	LOS	ADT	LOS
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	15,942	D	9,074	A
Twin Cities Road	West of SR-99	D	2	5,060	A	2,880	A
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	463	A	519	A
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	93	A	141	A
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	4,098	A	2,219	A
	Bilby Rd to Kyler Rd	D	4	4,098	A	2,219	A
	Kyler Rd to Whitelock Pkwy	D	2	4,098	A	2,219	A
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	6,027	C	5,197	C
	Lent Ranch Parkway to SR-99	D	6	6,027	A	5,197	A
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	19,907	A	15,228	A
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	2	**19,907**	**F**	15,228	D
	Waterman Rd to Bradshaw Rd	D	2	**19,907**	**F**	15,228	D
	Bradshaw Rd to Wilton Rd	D	2	**16,460**	**E**	12,700	C
	Wilton Rd to Calvine Rd	D	2	**18,029**	**F**	13,541	C
	Calvine Rd to Jackson Rd	D	2	**18,029**	**F**	13,541	C
Dillard Road	SR-99 to Wilton Rd	D	2	4,576	C	3,507	B
Wilton Road	Grant Line Rd to Green Rd	D	2	9,985	D	8,338	D
	Green Rd to Dillard Rd	D	2	3,811	C	3,309	B
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,090	C	3,719	C
	Project Alternative D/E access road to Dillard Rd	D	2	2,069	B	2,057	B

Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines*, July 2004, Table 2-Level of Service Criteria for Roadway Segments.

3.9 Existing Level of Service at Freeway Segments and Ramps

Traffic analyses were completed to evaluate the existing Weekday and Saturday PM operation of the study freeway segments and ramps. Where HOV lanes exist, freeway segment analyses were limited to the mix-use travel lanes, which are expected to have significantly more congestion than the HOV lanes. HOV volumes were estimated to represent 30% of the total mainline volume based on measured HOV volumes documented in Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (July 2011). Results of the mainline freeway segment analyses are presented in **Table 6**. Results of the freeway ramp analyses are presented in **Table 7**.

As shown in **Table 6**, all study freeway mainline segments currently operate at acceptable levels of service.

Table 6 – Existing Freeway Mainline Levels of Service

Highway 99 Segment	No. Lanes	Target LOS	Weekday			Saturday		
			PM Peak Hour Volume	LOS	Density (pc/mi/ln)	PM Peak Hour Volume	LOS	Density (pc/mi/ln)
Northbound								
Between Ayers Lane and Walnut Avenue	2	D	2,580	C	23.1	1,954	B	17.5
Between Walnut Avenue and Twin Cities Road	2	D	2,434	C	21.8	1,954	B	17.5
Between Twin Cities Road and Mingo Road	2	D	2,534	C	22.7	1,964	B	17.6
Between Mingo Road and Arno Road	2	D	2,537	C	22.7	1,967	B	17.6
Between Arno Road and Dillard Road	2	D	2,513	C	22.5	1,943	B	17.4
Between Dillard Road and Grant Line Road	2	D	2,467	C	22.1	2,143	C	19.2
Between Grant Line Road and Elk Grove Boulevard	2	D	2,160	C	19.3	1,969	B	17.6
Between Elk Grove Boulevard and Bond Road[1]	2	D	2,198	C	19.7	1,897	B	17.0
Southbound								
Between Ayers Lane and Walnut Avenue	2	D	2,541	C	22.8	2,113	C	18.9
Between Walnut Avenue and Twin Cities Road	2	D	2,581	C	23.1	2,081	C	18.6
Between Twin Cities Road and Mingo Road	2	D	2,816	C	25.5	2,219	C	19.8
Between Mingo Road and Arno Road	2	D	2,821	C	25.6	2,224	C	19.9
Between Arno Road and Dillard Road	2	D	2,853	C	25.9	2,256	C	20.2
Between Dillard Road and Eschinger Road	2	D	2,708	C	24.4	2,314	C	20.7
Between Eschinger Road and Grant Line Road	2	D	2,708	C	24.4	2,314	C	20.7
Between Grant Line Road and Elk Grove Boulevard	2	D	2,290	C	20.5	2,149	C	19.2
Between Elk Grove Boulevard and Bond Road[1]	2	D	2,548	C	22.8	1,400	B	12.5

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 7 – Existing Ramp Junction Levels of Service

Interchange Location	Target LOS	Junction Type	Weekday PM Peak Hour		Saturday Peak Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 99 Ramps at Twin Cities Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	29.4	D	23.5	C
W Stockton Boulevard/SR-99 SB On-Ramp (northside)	D	Merge	24.4	C	20.0	C
W Stockton Boulevard/SR-99 SB On-Ramp (southside)	D	Merge	25.7	C	21.1	C
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	25.6	C	20.8	C
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	25.3	C	20.2	C
SR 99 Ramps at Mingo Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	28.0	C	22.0	C
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	30.1	D	24.7	C
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	25.3	C	19.5	B
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	27.5	C	22.4	C
SR 99 Ramps at Grant Line Road						
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 NB On-Ramp (WB Right)	D	Merge	16.3	B	14.7	B
SR-99 NB On-Ramp (EB Loop)	D	Merge	15.5	B	14.9	B
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 SB On-Ramp (WB Loop)	D	Merge	21.3	C	18.6	B
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.2	B
Notes:						
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound						

As shown in **Table 7**, all study freeway ramps currently operate at acceptable levels of service.

Additional detail of the analysis is provided in the **Appendix**.
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4. NO PROJECT ALTERNATIVE

The No Project Alternative represents the evaluation of traffic conditions without the construction of the proposed project. This alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the proposed project. The second horizon, the long-term cumulative (2035) scenario, corresponds to the build out year and available local and regional traffic forecasts.

4.1 Proposed Transportation Projects in Vicinity of Site

Several major transportation improvement projects are planned within the study area and anticipated to be completed within the near-term (2018) and cumulative (2035) horizon years regardless of the proposed project. For the purposes of this study, these improvements were identified based on review of currently adopted local General Plans, Capital Improvement Programs, the SACOG 2035 MTP/SCS, recently approved traffic impact studies for development projects and through discussions with city, county and Caltrans staff. Only planned improvements that are planned, programmed and anticipated to be fully funded and constructed within the near-term or cumulative horizon years are assumed in this traffic analysis. Only improvement projects that are pertinent to the analysis assumptions for this traffic study are listed below.

The following planned transportation improvements are assumed to be completed within the near-term (year 2018):

- **Grant Line Road Widening Phase I (Capital SouthEast Corridor Segment)** – Widen from two to four lanes from East Stockton Boulevard to Waterman Road. Perform grade separation over the U.P. Railroad Tracks.
- **Grant Line Road Widening Phase II (Capital SouthEast Corridor Segment)** – Widen from two to four lanes from Waterman Road to Mosher Road. Add Class II bike lanes and Class I bicycle paths on both sides of Grant Line Road with signals at Mosher Road and Bradshaw Road.
- **Grant Line Road/Sheldon Road** – Install traffic signal.[4]

The following planned transportation improvements are assumed to be completed within the cumulative (year 2035) horizon year:

- **Twin Cities Road Widening**[5]
    - Widen to four lanes west of SR 99 to Midway.

[4] The Grant Line Road/Sheldon Road intersection has since been signalized prior to release of this study.
[5] The City of Galt previously identified plans to widen Twin Cities Road to a six-lane expressway. However, the current plans include widening to four lanes east to Marengo. The Eastview development project will be required to construct a second eastbound lane between Marengo and Cherokee, but no funds are currently collected for further widening.

  - Widen to four lanes from Fermoy Way to Marengo Road
  - Add a second eastbound lane from Marengo Road to Cherokee Lane
- **Twin Cities Road/Marengo Road Intersection Improvements** – Install new traffic signal
- **Carillion Boulevard Extension** – Construct a four-lane roadway extension from Vauxhall to Boessow Road
- **Marengo Road Widening** – Widen to four lanes from Twin Cities to Simmerhorn. Construct new four-lane road from Simmerhorn Road to Crystal Way.
- **Grant Line Road Widening Future Phases (Capital SouthEast Corridor Segment)**
  - Widen from two to four lanes from Mosher Road to Bradshaw Road.
  - Widen from four to six lanes from Waterman Road to Bradshaw Road. Widen from two to four lanes from Bradshaw Road to Calvine Road.
  - Widen from two to four lanes from Calvine Road to Jackson Road (SR 16)
- **Kammerer Road Extension and Widening (Capital SouthEast Corridor Segment)**
  - Construct new four-lane Kammerer Road extension from Bruceville Road to I-5 (at Hood Franklin Road), modifying the I-5/Hood Franklin Interchange, and construction of a railroad overcrossing at UP railroad tracks.
  - Widen from two to four lanes then four to six lanes from west of SR 99 to Bruceville Road
- **Elk Grove Boulevard / SR 99 Interchange** – Provide a northbound loop on-ramp to SR 99 from East Stockton Boulevard south of Elk Grove Boulevard, eliminate the signal at the existing northbound on-ramp

The City of Galt has recently completed interim improvement modifications to the Twin Cities/SR 99 interchange, which includes widening of Twin Cities Road east of SR 99 from East Stockton Boulevard to Fermoy Way and construction of roundabouts at the intersection of Twin Cities Road with West Stockton Boulevard and East Stockton Boulevard. These interim improvements were designed with a 10- to 15-year design life -- these facilities are not anticipated to provide sufficient capacity to accommodate the long-term (2035) traffic levels. The City has identified long-term plans for full reconstruction of the Twin Cities Road/SR 99 interchange; however, project funding has not yet been identified and the anticipated completion year for this improvement is not yet known. For this reason, no additional improvements to the Twin Cities interchange are assumed to be constructed by 2035 for the purposes of this analysis.

Previous regional planning efforts identified the future widening of SR-99 to six and eventually eight lanes. The improvement to six and eight lanes is listed in the SR-99 Caltrans Transportation Concept Report as a concept facility configuration and ultimate facility configuration, respectively. However, no future widening of SR 99 within the study area is identified in the currently adopted SACOG MTP/SCS; thus the existing freeway mainline configuration is assumed to remain through year 2035.

4.2 Near-Term and Long-Term Cumulative Traffic Forecasts

Cumulative (2035) traffic forecasts were developed for study intersections, roadway segments and freeway facilities using local and regional travel demand forecasting model projections. Projected traffic volumes for study facilities within the City of Galt's sphere of influence were provided by the City and were developed using the City of Galt Traffic Model (Omni Means, 2014). The Galt model reflects build out of the land uses within the City's sphere of influence through year 2035. Through year 2035, the model forecasts reflect the addition of 2,564 new residential dwelling units and approximately 117 acres of non-residential growth, including residential and non-residential growth as part of the Eastview Specific Plan development. The City also provided traffic projections for an interim horizon year, which reflect development within the City's sphere of influence through year 2021. For the purposes of developing near-term (2018) baseline traffic forecasts for this study, the year 2021 traffic forecasts provided by the City of Galt were compared to existing traffic volumes at study facilities. The 2021 volumes were then adjusted to reflect only four (4) years of growth from existing levels (2014 to 2018).

A modified version of SACOG's 2035 MTP/SCS travel demand forecasting model was used to develop traffic projections for study facilities outside of the City of Galt's sphere of influence. Per direction from the City of Elk Grove, a refined version of the SACOG model recently developed as part of the City of Elk Grove's Southeast Policy Area Strategic Plan traffic analysis was used for this analysis. The SACOG model reflects build out of the regional transportation network and land use plan developed in the SACOG 2035 MTP/SCS, as well as build out development levels within the City of Elk Grove, which includes build out of the Laguna Ridge Specific Plan, Sterling Meadows, the Elk Grove Promenade, and Lent Ranch Marketplace development.

The SACOG model projections and traffic analysis prepared for the City of Elk Grove Southeast Policy Area Strategic Plan were reference to develop weekday PM peak hour traffic volumes on each segment of the roadways in the study area. Model output was used to compare the base year (2008) with year 2035 model forecasts to determine the incremental difference in traffic volumes at study intersections and roadway facilities. Year 2035 weekday PM intersection turning movement volumes were calculated by adding the weighted incremental difference in segment (i.e., link) volumes to the existing 2014 link volumes to essentially reflect 21 years of growth. The roadway link volumes and existing (2014) intersection turning movement volumes were used to generate future year (2035) turning movement volumes using a process known as "furnessing". The Furness process uses the projected 2035 link approach and departure volumes, as well as the existing turning movement distributions, to project 2035 intersection turning movement volumes. With this process, initial 2035 turning movement volumes by approach are calculated based on existing turning movement distributions, then adjusted through several iterations until the existing approach volumes are in agreement with the departing volume distributions. Near-term (year

2018) baseline traffic volumes were calculated by comparing existing (2014) traffic volumes and the year 2035 forecast volumes and applying a weighted amount of growth to the exiting volumes to reflect only four years of growth (2014 to 2018).

While included in the SACOG model forecasts, plans for the previously approved Elk Grove Promenade mall development were abandoned prior to completion of the project due to economic challenges. However, another developer has since purchased the Promenade property with plans to develop the site as an outlet retail center with approximately 775,000 square feet of retail – smaller than the 1.3 million square-foot project that was previously approved. Baseline traffic volumes at the Promenade Parkway intersections accessing the proposed outlet project site were refined to provide consistency with the anticipated traffic levels associated with the current development plans for the site.

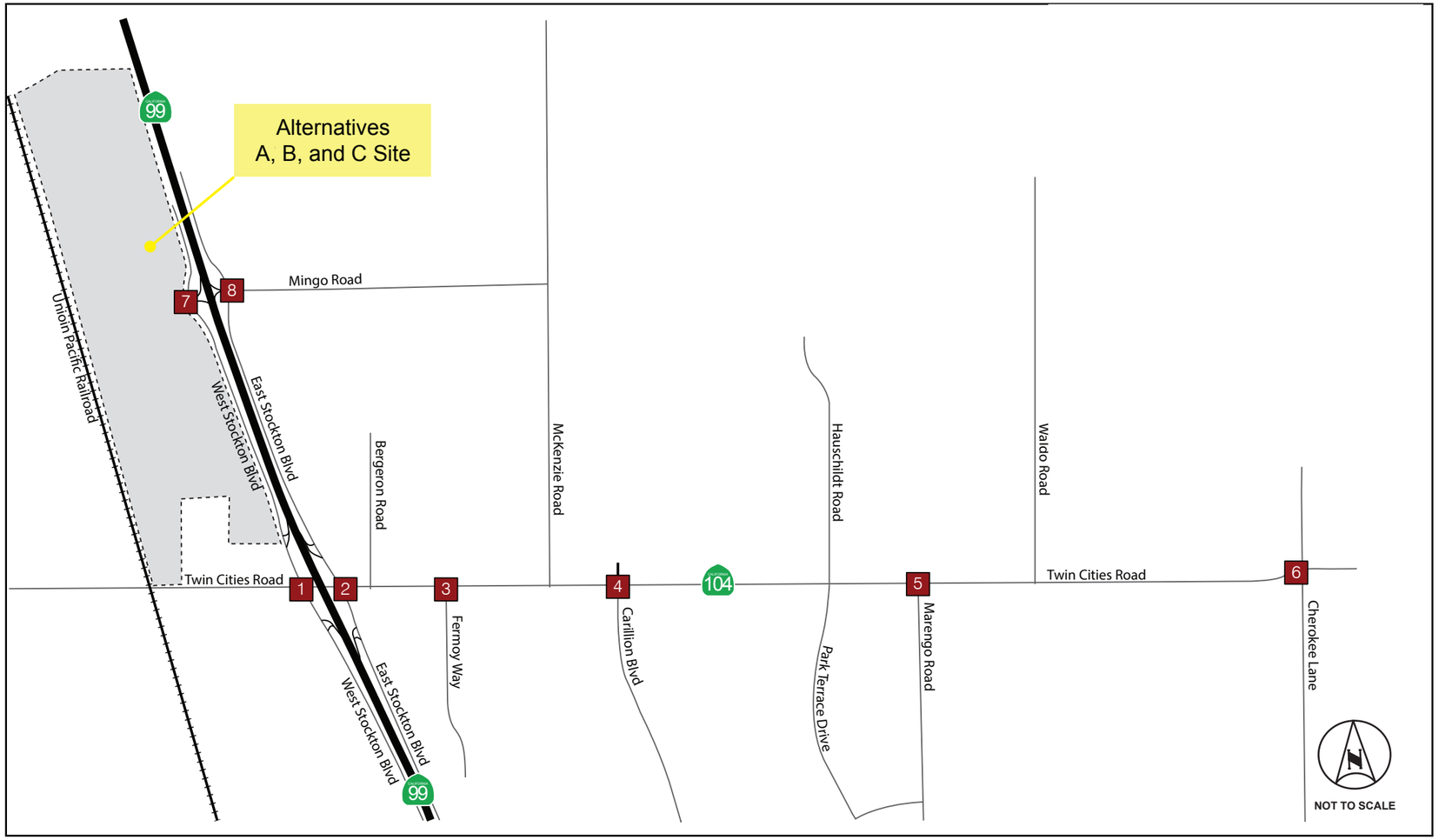
Neither the City of Galt Traffic Model, nor the SACOG travel demand model, include projections for Saturday traffic conditions. For the purposes of this study, year 2035 and 2018 Saturday volumes were calculated by determining the proportional difference between the existing weekday and existing Saturday volumes and applying that same proportion to the weekday PM peak hour model forecast volumes to obtain the projected Saturday peak hour and daily volumes.

4.3 Near-Term Lane Configurations and Traffic Control

As discussed above, several roadway and intersection improvements are currently planned and anticipated to be completed by the proposed opening year of the proposed project (2018). **Figure 6** illustrates the intersection lane geometrics and traffic control expected to be in place in 2018 regardless of the proposed project.

4.4 Near-Term Traffic Volumes (No Project)

As discussed previously, near-term (2018) traffic volumes without the proposed project were developed for all study intersections, roadway segments and freeway facilities. **Figure 7** and **Figure 8** show the near-term (2018) Weekday and Saturday PM peak hour intersection turning movement volumes at the study intersections. These volumes represent anticipated traffic levels in the year 2018, regardless of the proposed casino and hotel. Near-term roadway segment ADT volumes are summarized in the level of service summary table presented in the following sections. Near-term peak hour volumes for study freeway facilities are included in the level of service calculation worksheets in the **Appendix**.

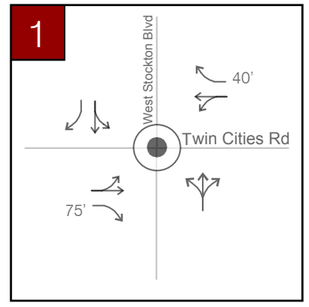


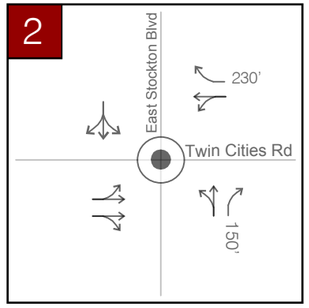
*Intersections with geometry and traffic control shown in gray have no changes from existing conditions.

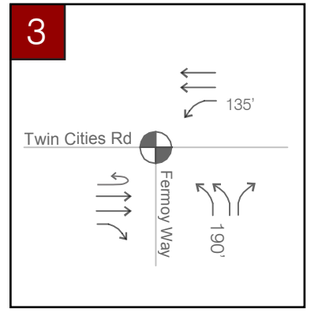
Legend:

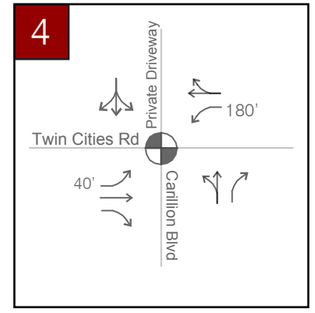
- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- Traffic Signal
- Stop Sign
- Roundabout
- XX' Turn Pocket Storage Length
- Yield Sign

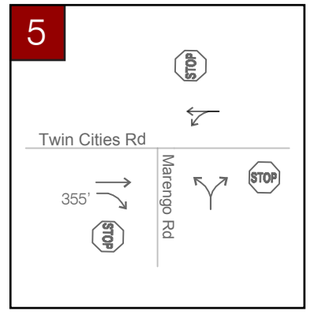
*Intersections with geometry and traffic control shown in gray have no changes from existing conditions.

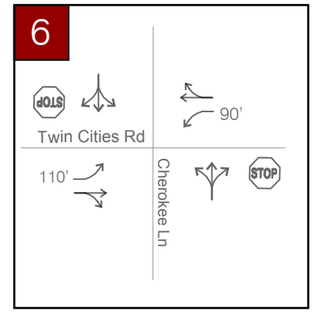


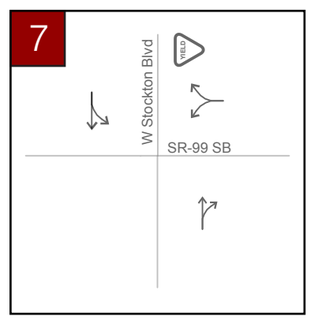












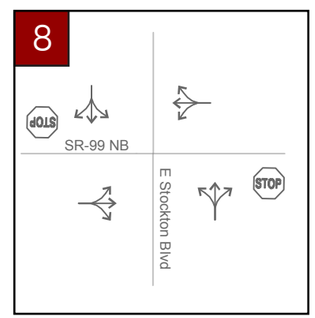


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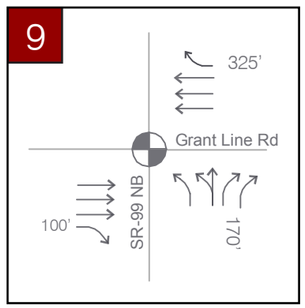
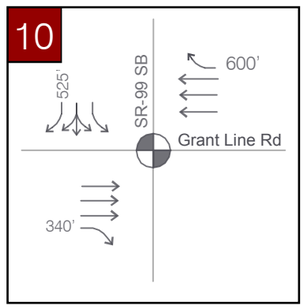
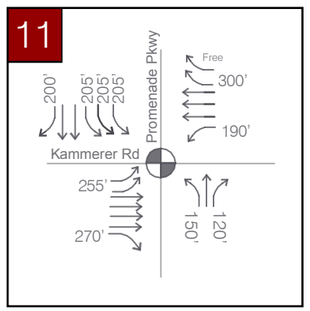
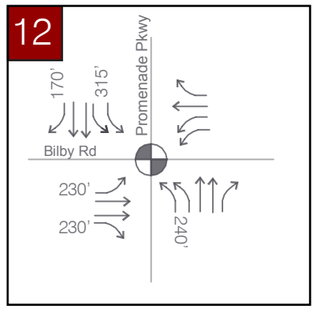
Figure 6

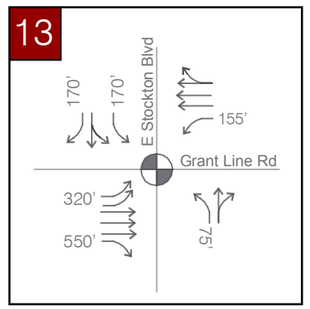
Near-Term (2018) Intersection Lane Geometry and Traffic Control

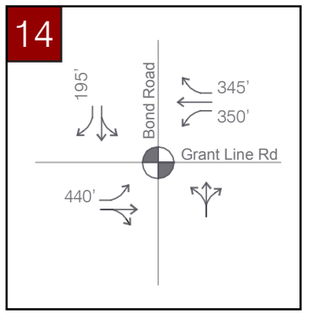


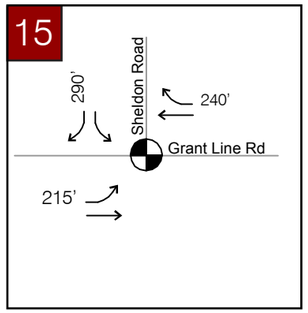


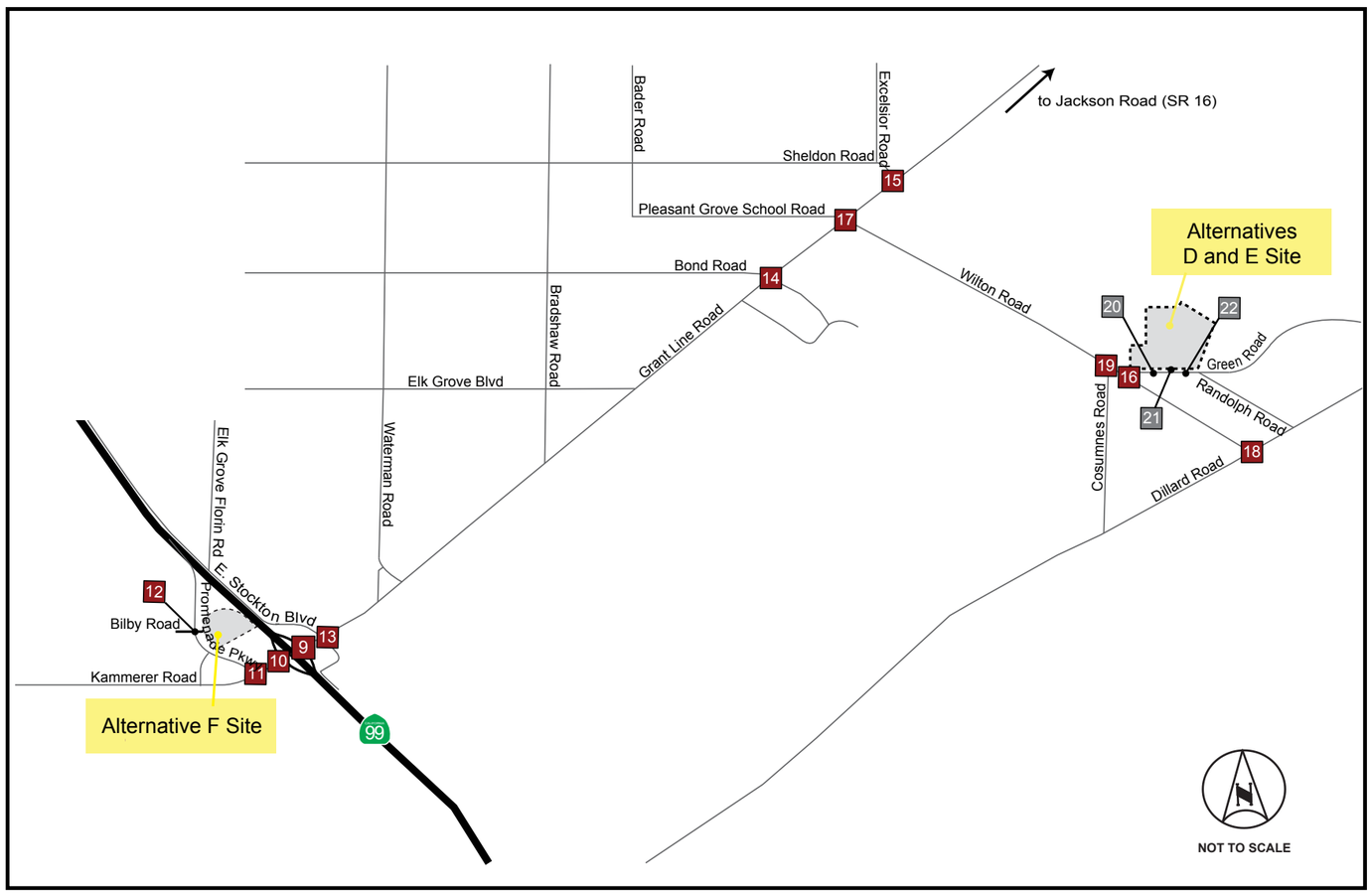


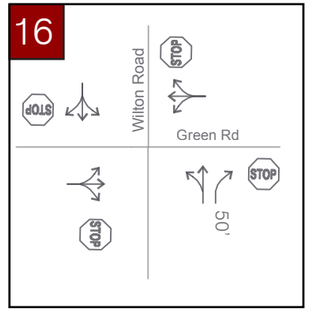


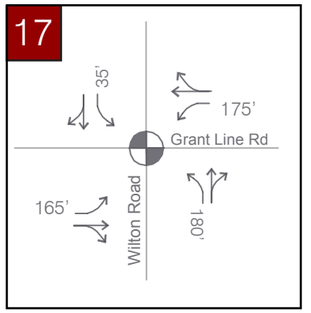


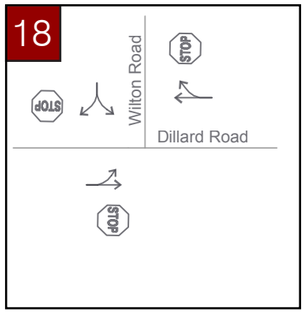


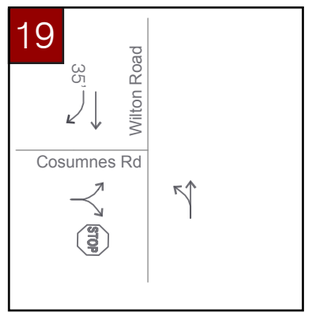


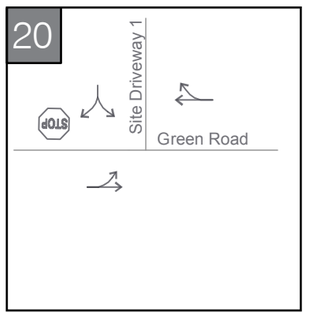


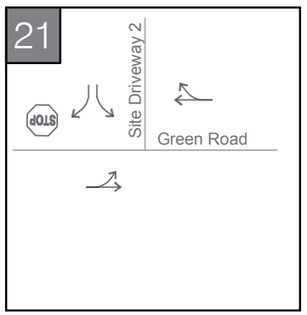












Legend:

- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- XX' Turn Pocket Storage Length
- Traffic Signal
- STOP — Stop Sign

*Intersections with geometry and traffic control shown in gray have no changes from existing conditions

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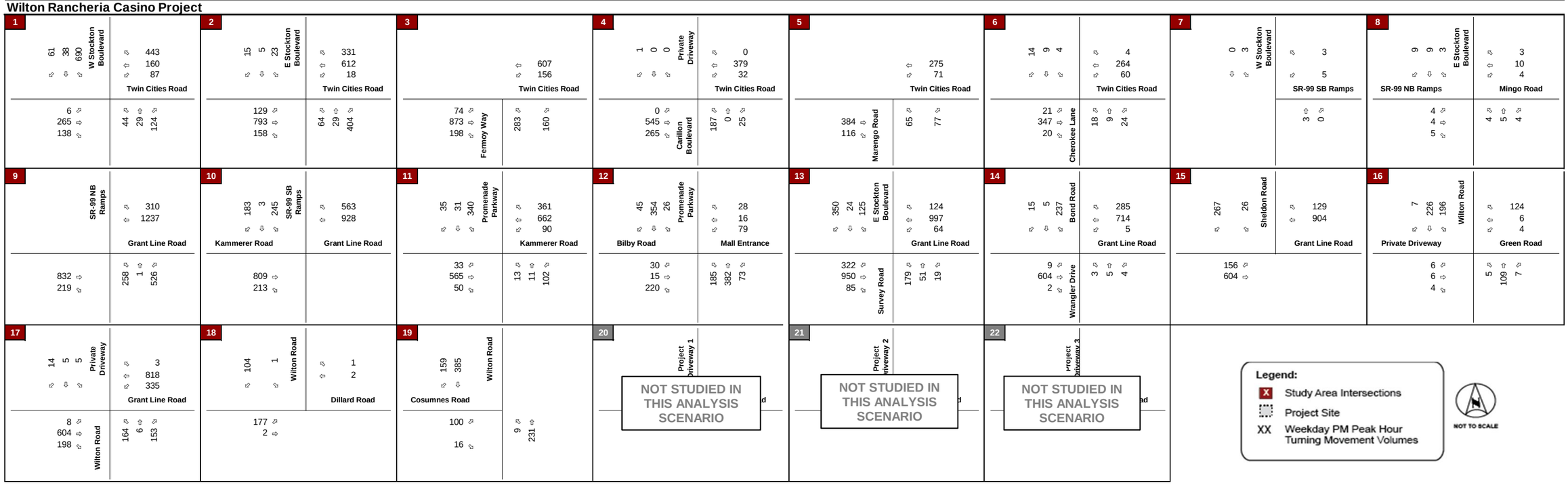
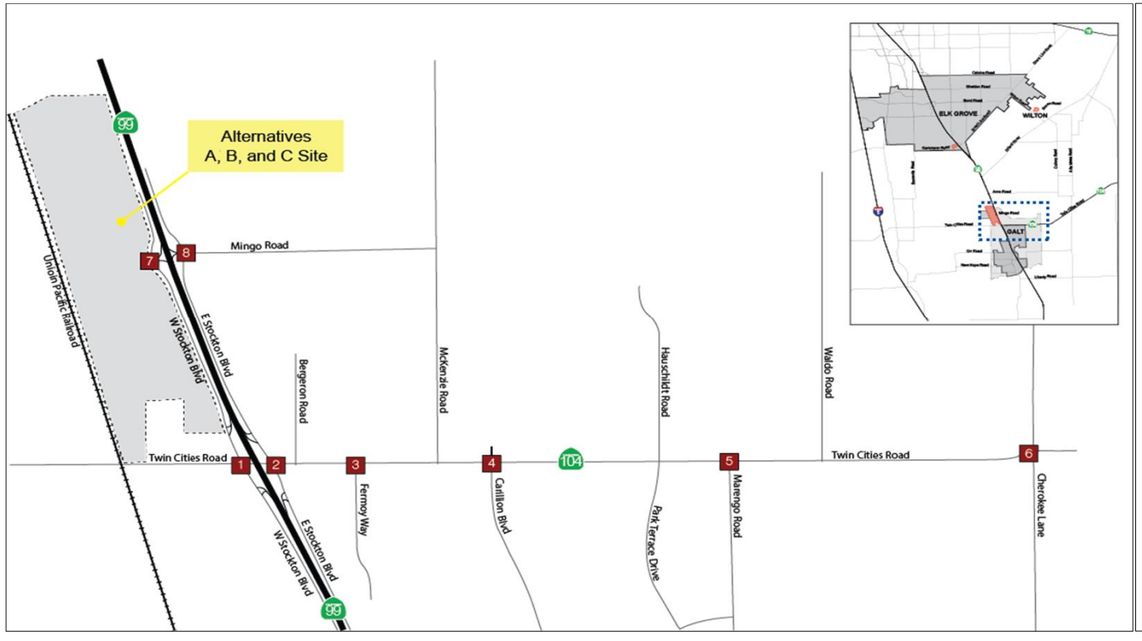
Figure 6

Near-Term (2018) Intersection Lane Geometry and Traffic Control (cont.)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



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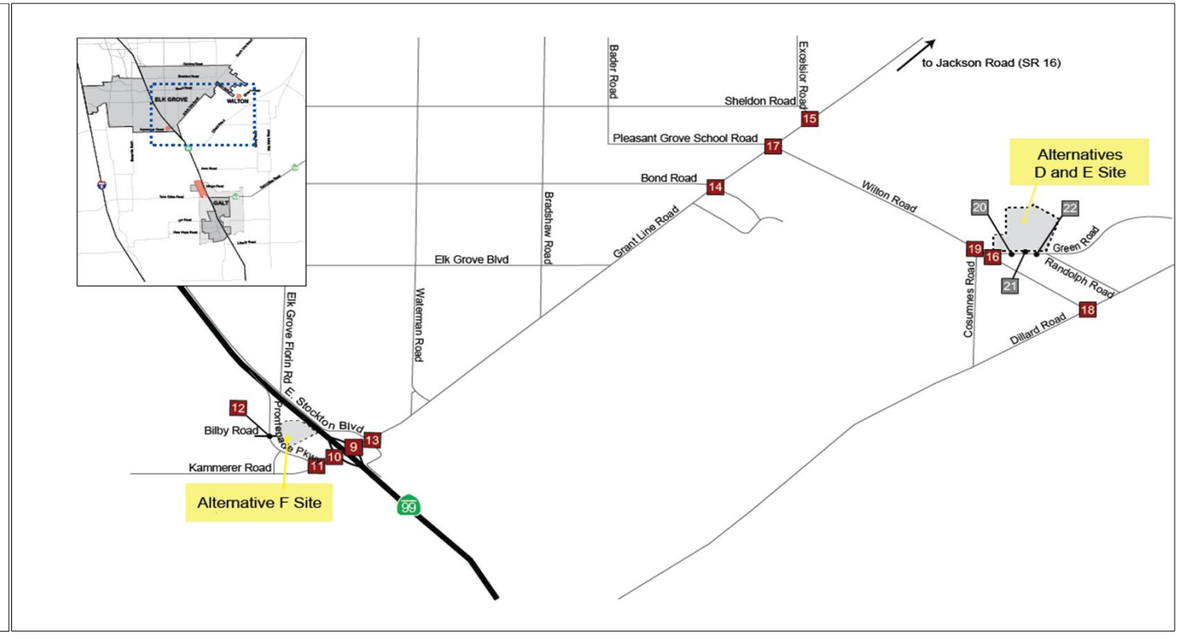

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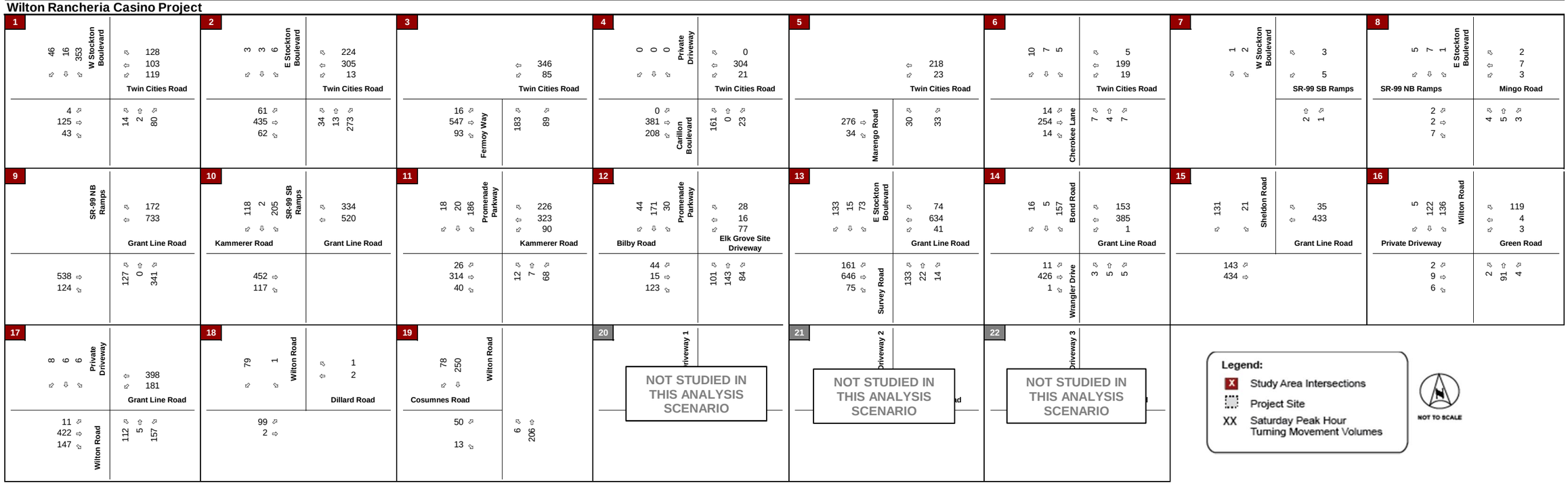
FIGURE 7

NEAR-TERM (2018) WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



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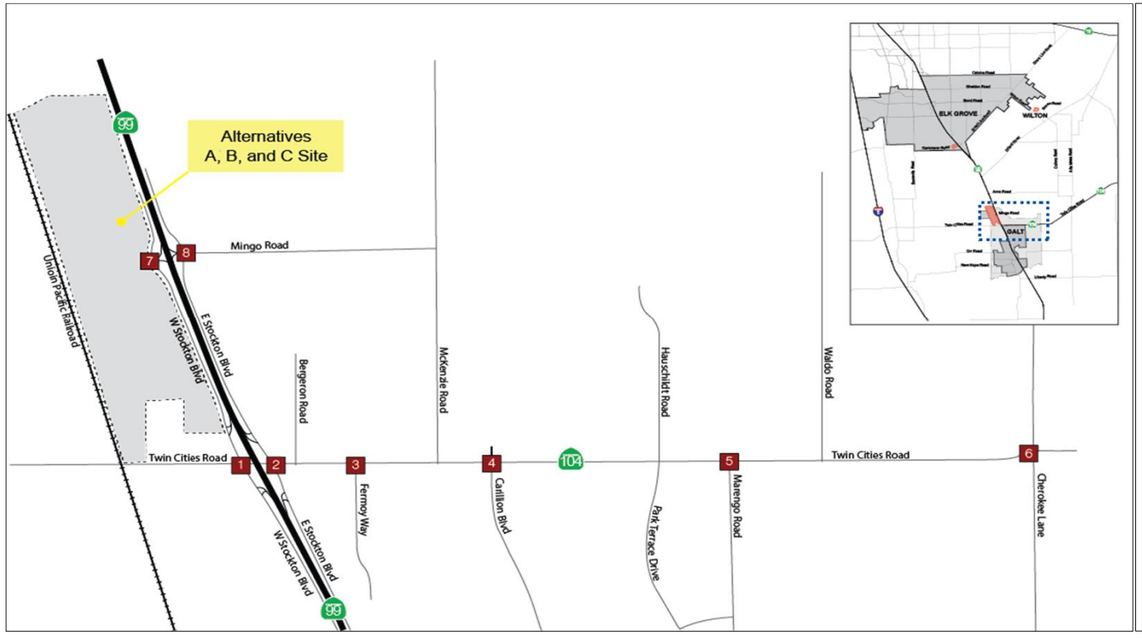

Vicinity Map (Intersections #9-22)

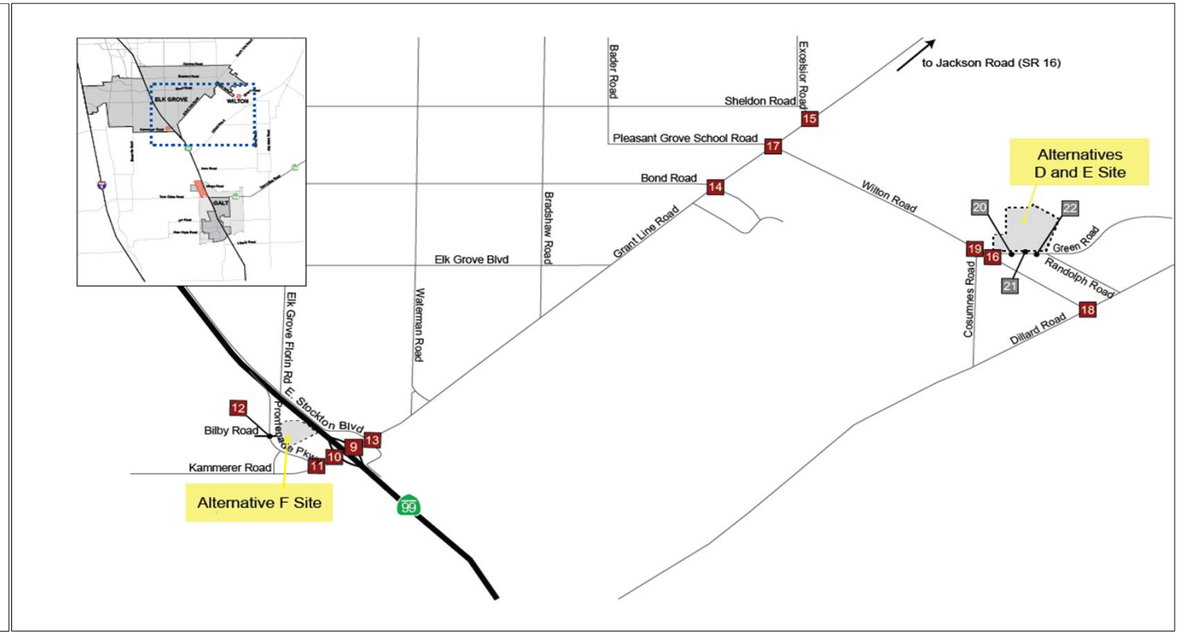

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FIGURE 8

NEAR-TERM (2018) SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

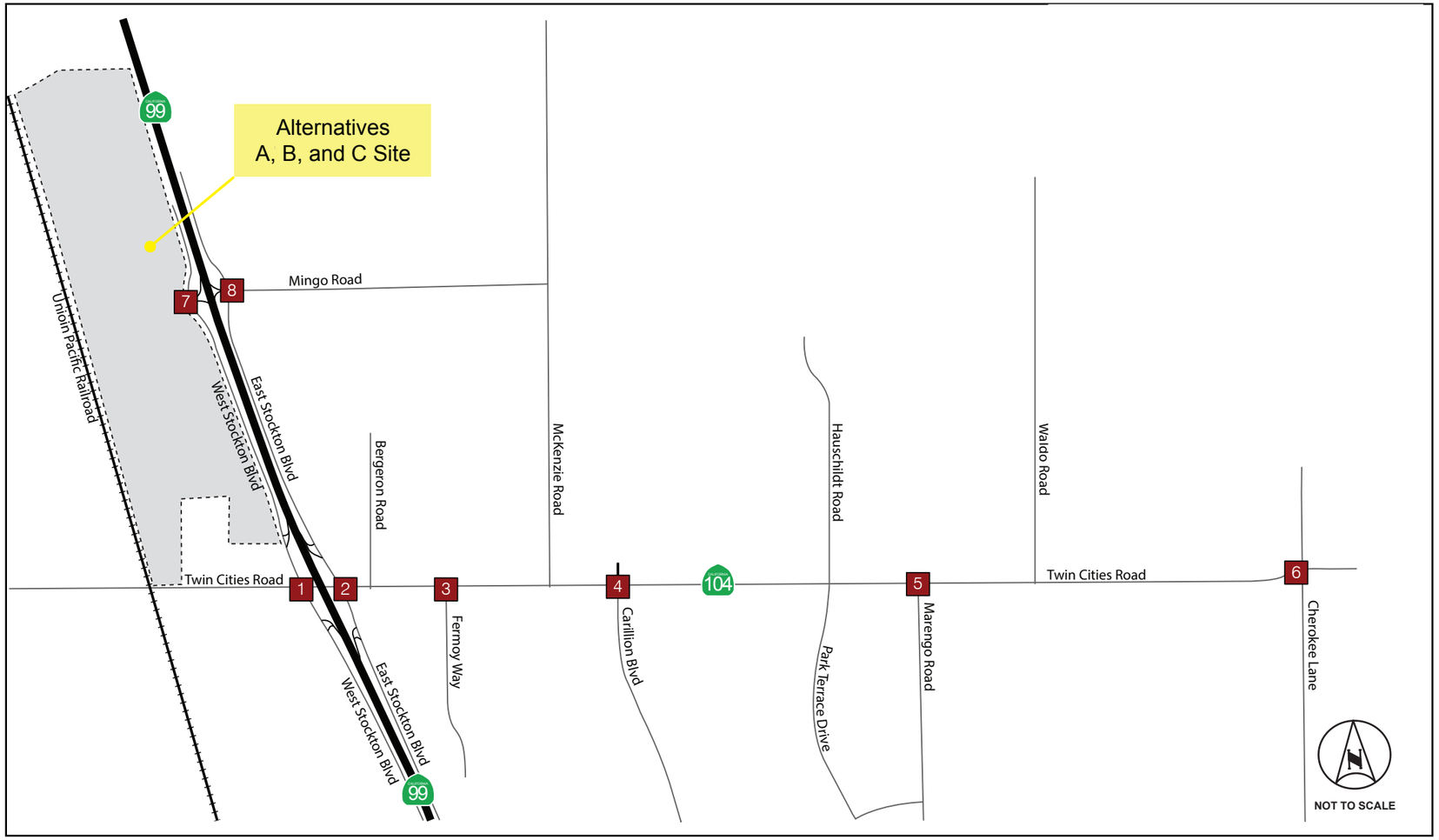
C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]NT-SAT Figure

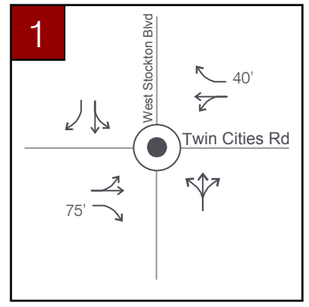
4.5 Long-Term Lane Configurations and Traffic Control

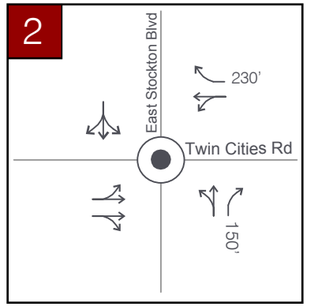
Additional roadway and intersection improvements are expected within the project study area by the year 2035 including additional roadway widening along Grant Line Road and Kammerer Road as part of the Capital SouthEast Connector project and various roadway improvements within the City of Galt. **Figure 9** illustrates the intersection geometry and traffic control assumed in the long-term cumulative analysis.

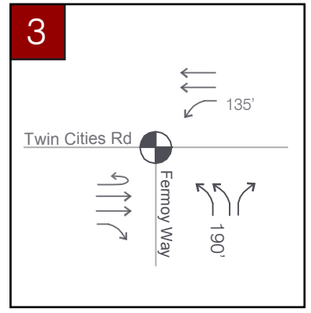
4.6 Long-Term Cumulative Traffic Volumes (No Project)

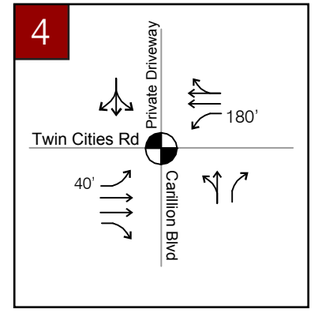
As discussed previously, additional development within the study area and within the greater region is expected to be completed by the year 2035 and will contribute to a cumulative increase in background traffic regardless of the proposed project. Land use growth within the Cities of Galt and Elk Grove, and the greater Sacramento County region comprise the long-term cumulative traffic forecast. **Figure 10** and **Figure 11** show the weekday and Saturday PM peak hour intersection turning movement volumes at the study intersections for long-term cumulative (2035) conditions. These volumes represent anticipated traffic levels in the year 2035, regardless of the proposed project. Long-term roadway segment ADT volumes are summarized in the level of service summary table presented in the following sections. Long-term peak hour volumes for study freeway facilities are included in the level of service calculation worksheets in the **Appendix**.

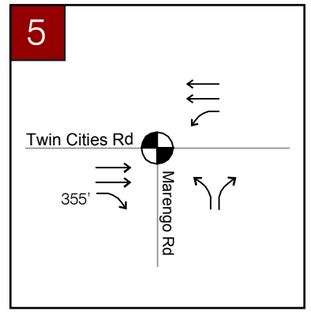


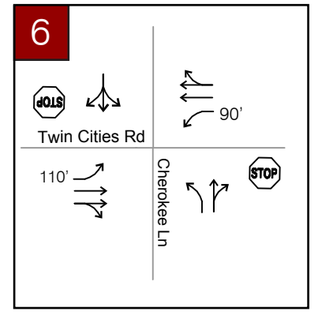


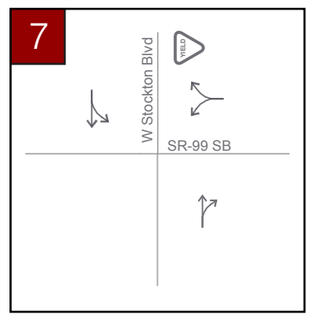


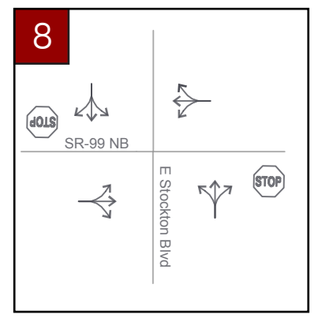












Legend:

- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- Traffic Signal
- STOP — Stop Sign
- Roundabout
- XX' Turn Pocket Storage Length
- YIELD — Yield Sign

*Intersections with geometry and traffic control shown in gray have no changes from the preceding scenario

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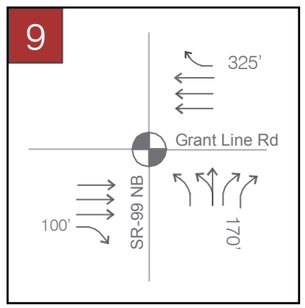
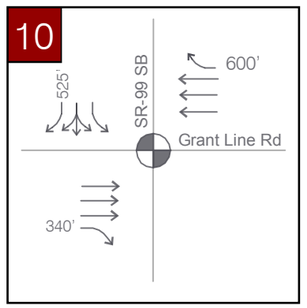
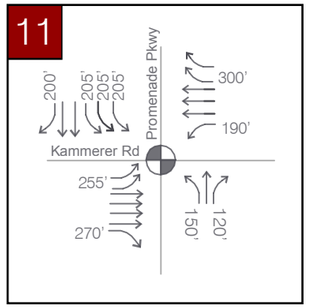
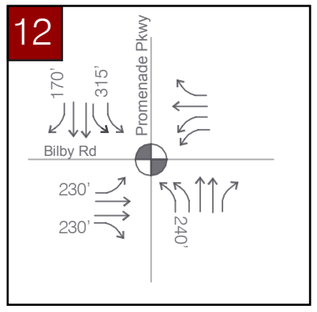
Figure 9

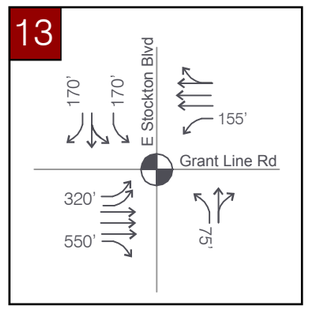
Cumulative (2035) Intersection Lane Geometry and Traffic Control

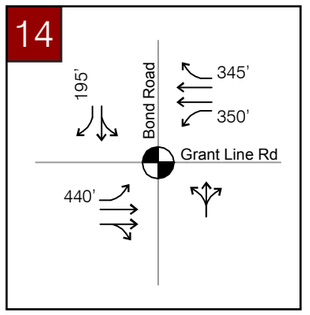


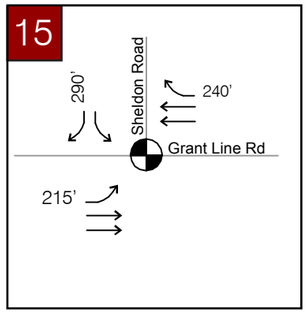


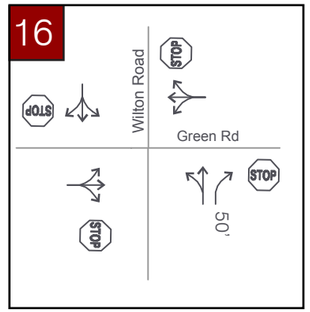


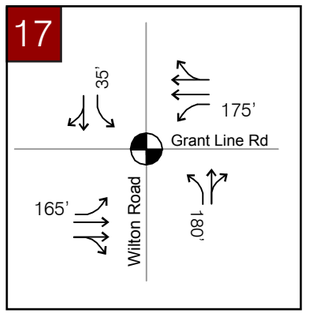


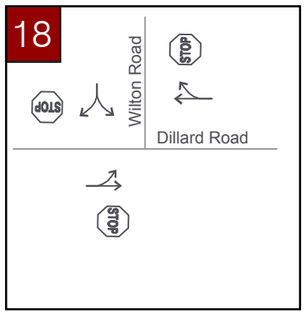


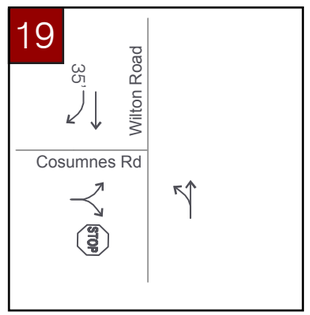


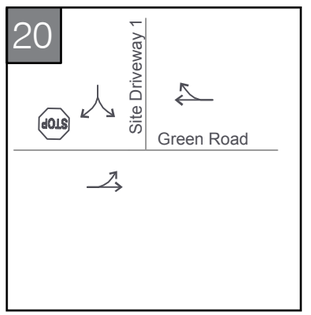


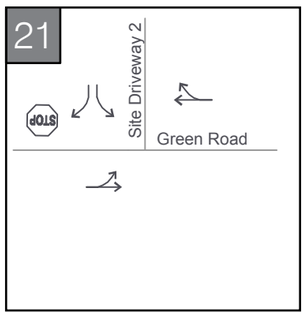


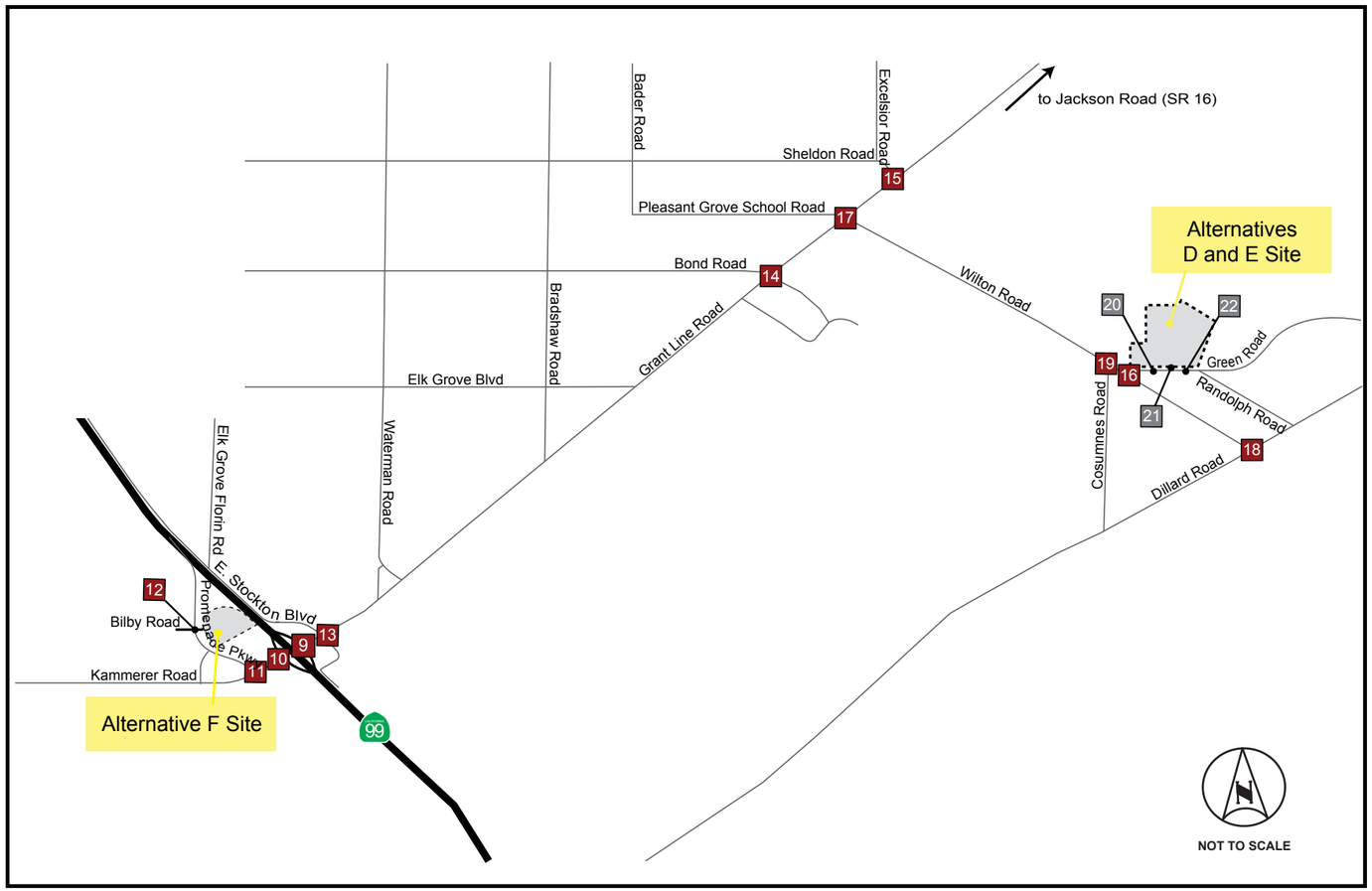










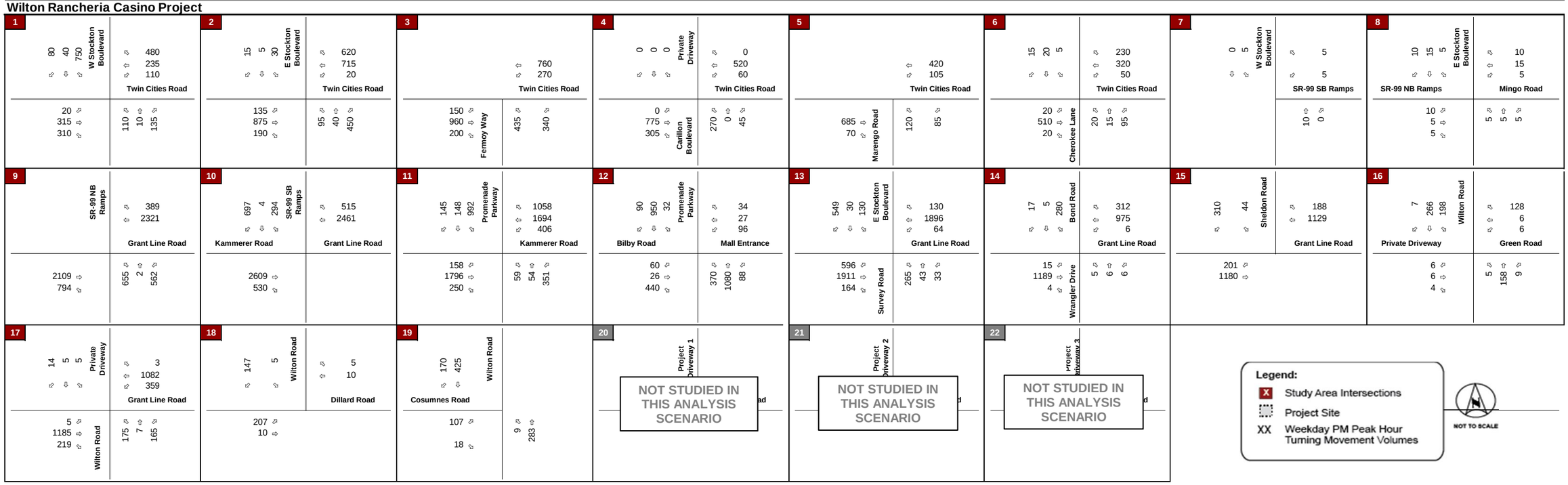


Legend:

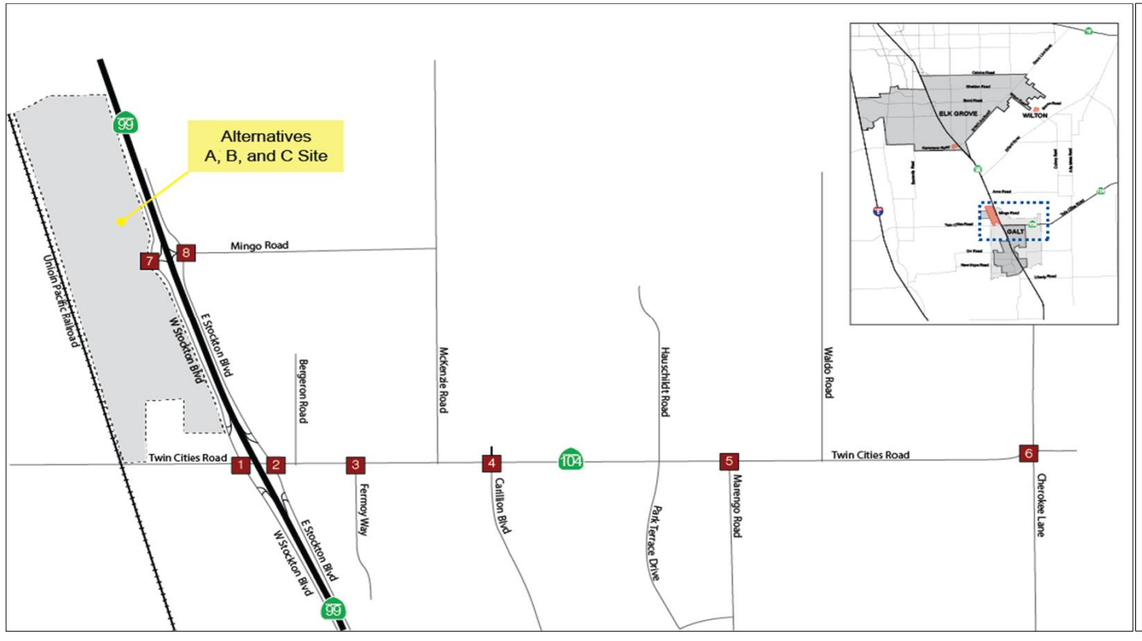
- X — Study Area Intersections
- X — Future Project Driveway Intersection
- Project Site
- XX' Turn Pocket Storage Length
- Traffic Signal
- STOP — Stop Sign

*Intersections with geometry and traffic control shown in gray have no changes from the preceding scenario

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

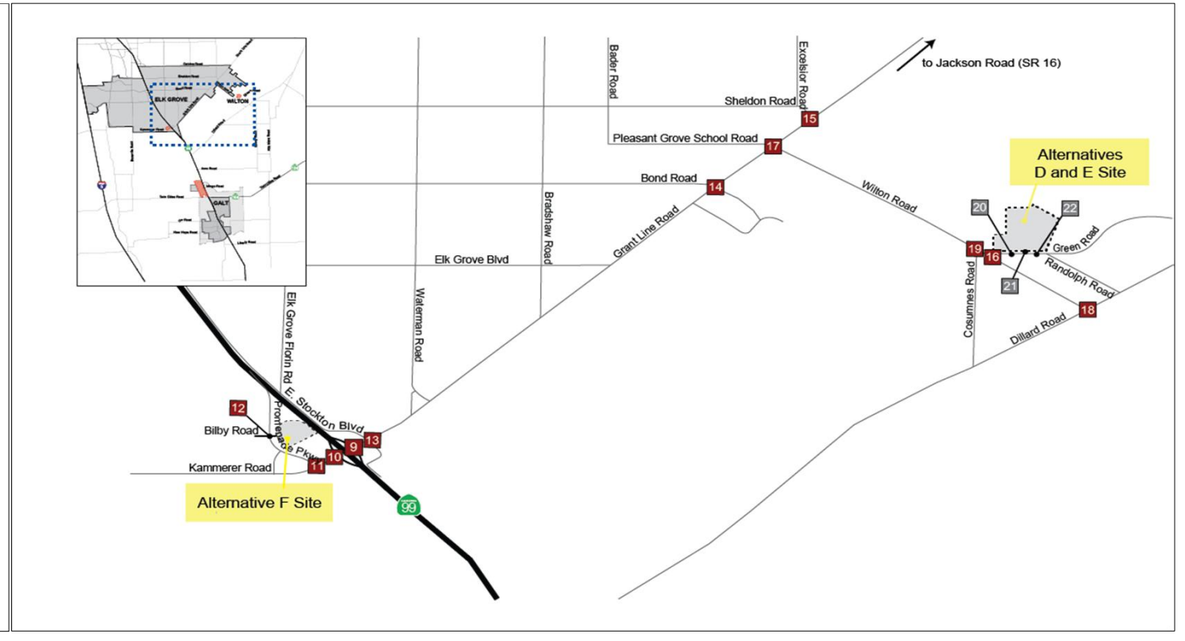


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FIGURE 10

CUMULATIVE (2035) WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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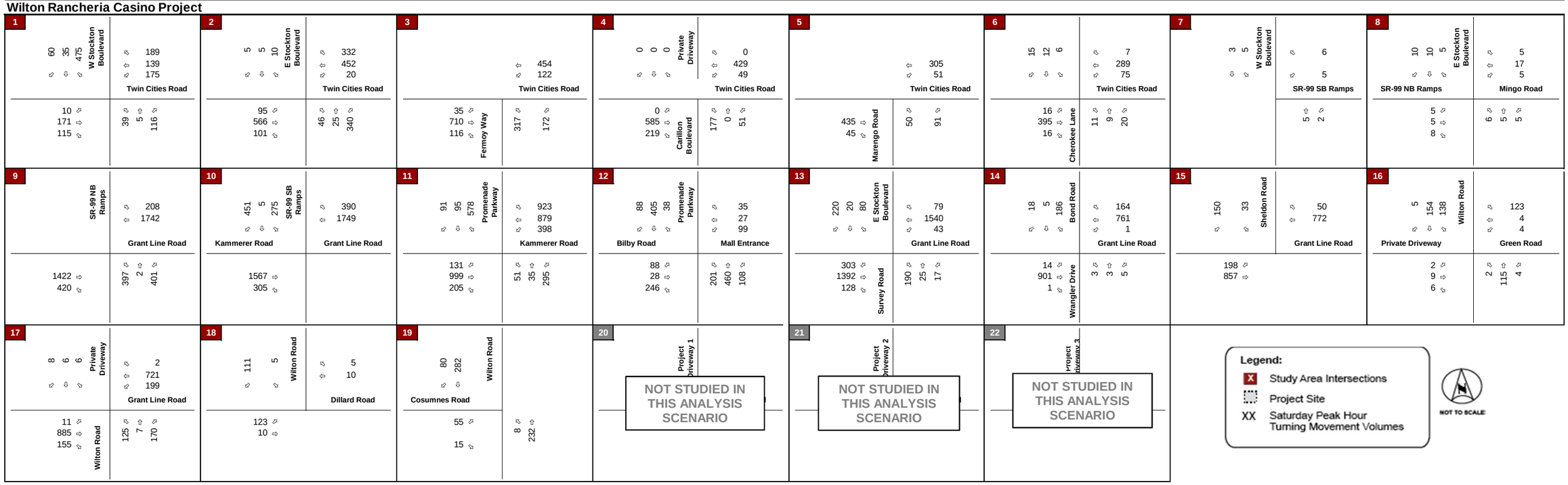
Wilton Rancheria Casino Project



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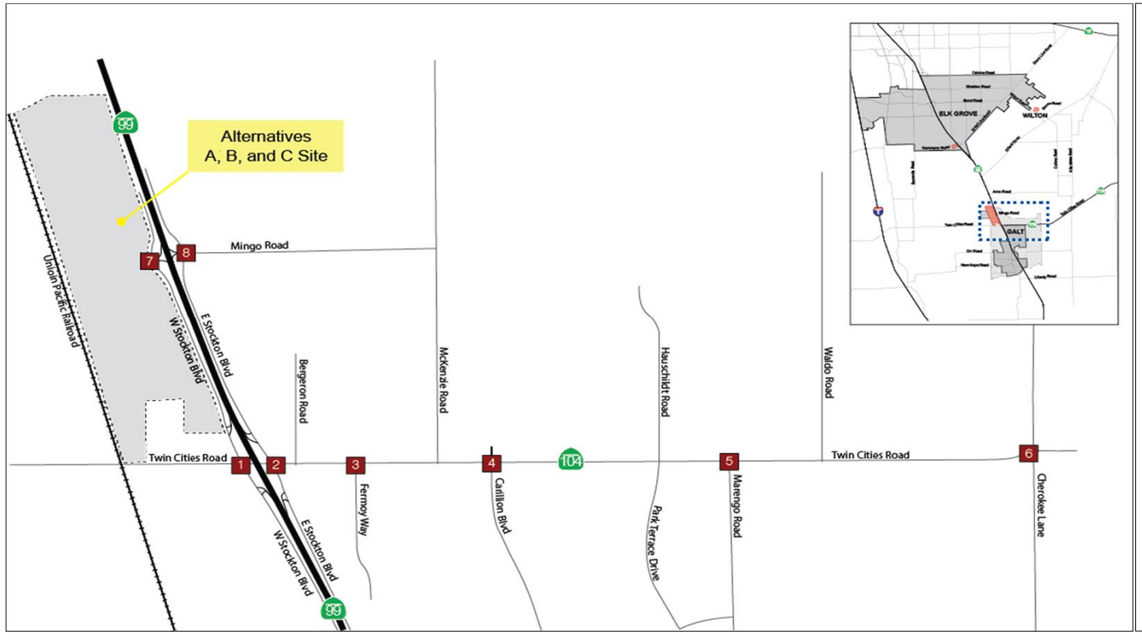

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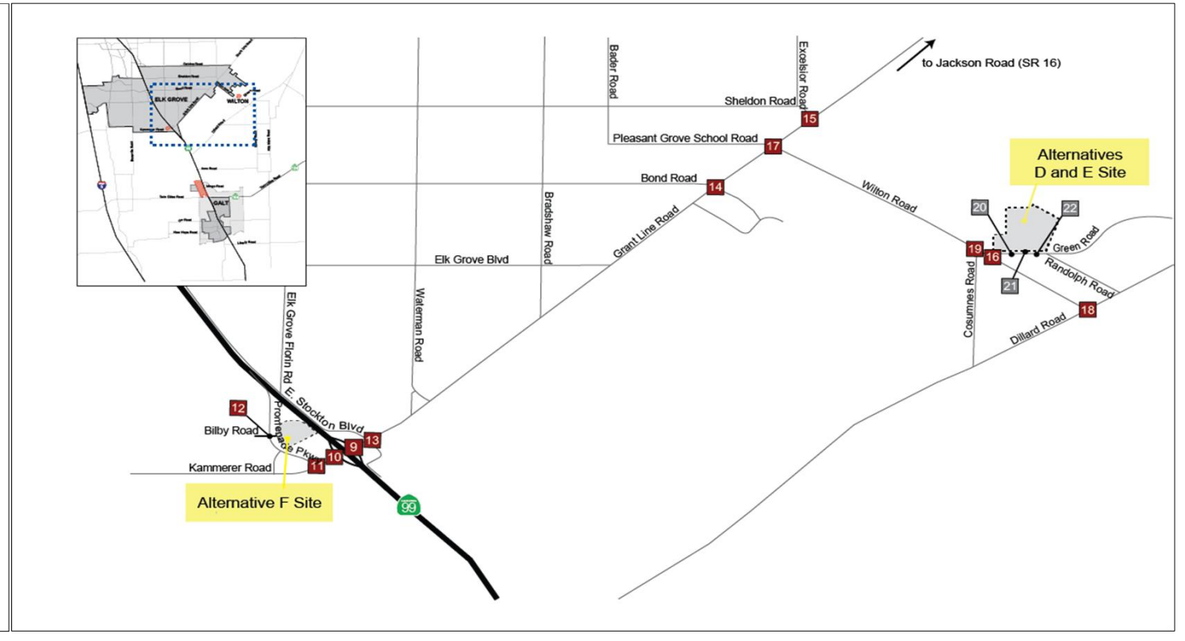

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FIGURE 11

CUMULATIVE (2035) SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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4.7 No Project Level of Service at Study Intersections

Traffic operations were evaluated at all study intersections for weekday PM and Saturday peak hour conditions for the near-term (2018) scenario without the proposed project. Results of this analysis are presented in **Table 8**.

Table 8 – Near-Term (2018) No Project Intersection Levels of Service

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	27.7	A	7.6
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	29.3	A	8.0
3	Twin Cities Rd/Fermoy Way	Signal	D	-	B	16.7	B	11.5
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	12.2	A	9.6
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	B	13.5	A	9.7
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	C	16.9	B	12.6
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	A	8.7	A	8.6
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.2	A	9.1
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6
11	Promenade Parkway/Kammerer Rd	Signal	D	-	C	23.1	B	19.7
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	20.7	C	34.5
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4
16	Wilton Rd/Green Rd	AWSC	D	-	B	11.1	A	8.8
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	15.4	B	11.9
20	Green Road/Project Driveway 1	-	-	-	-	-	-	-
21	Green Road/Project Driveway 2	-	-	-	-	-	-	-
22	Green Road/Project Driveway 3	-	-	-	-	-	-	-

Notes:
1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections, average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

As shown in **Table 8**, the following study intersections are projected to operate at unacceptable levels of service for near-term (2018) conditions without the proposed project:

- Grant Line Road/East Stockton Boulevard (Weekday PM)

It should be noted that the intersection of Grant Line Road/Sheldon Road, which operates at unacceptable levels of service for existing conditions, is projected to operate acceptably for near-term conditions, as a traffic signal is planned to be installed at this location in 2015.

Traffic operations were evaluated at all study intersections for weekday PM and Saturday peak hour conditions for the long-term cumulative (2035) scenario without the proposed project. Results of this analysis are presented in **Table 9.**

Table 9 – Cumulative (2035) No Project Intersection Levels of Service

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**F**	**61.0**	B	12.7
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**E**	**44.0**	B	11.6
3	Twin Cities Rd/Fermoy Way	Signal	D	-	C	29.6	B	14.4
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	14.5	A	9.6
5	Twin Cities Rd/Marengo Rd	Signal	D	-	B	10.4	A	7.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	D	26.6	C	21.1
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	A	8.8	A	8.8
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.5	A	9.3
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5
11	Promenade Parkway/Kammerer Rd	Signal	D	-	**F**	**87.5**	D	48.4
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	34.8	D	41.1
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3
16	Wilton Rd/Green Rd	AWSC	D	-	B	12.2	A	9.2
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	17.5	B	12.6
20	Green Road/Project Driveway 1	-	-	-	-	-	-	-
21	Green Road/Project Driveway 2	-	-	-	-	-	-	-
22	Green Road/Project Driveway 3	-	-	-	-	-	-	-

Notes:
1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections, average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

As shown in **Table 9**, the following study intersections are projected to operate at unacceptable levels of service for cumulative (2035) conditions without the proposed project:

- West Stockton Boulevard/Twin Cities Road (Weekday PM)
- East Stockton Boulevard/Twin Cities Road (Weekday PM)
- Promenade Parkway/Kammerer Road (Weekday PM)
- Grant Line Road/East Stockton Boulevard (Weekday PM)

It should be noted that the Twin Cities roundabouts at West Stockton Boulevard and East Stockton Boulevard, which were constructed in 2014, were designed with a 10- to 15-year design life. While the roundabout intersections will accommodate the existing and near-term traffic demand, these facilities are not anticipated to provide sufficient capacity to accommodate the long-term (2035) traffic levels. As shown in **Table 9**, the

Twin Cities Road/West Stockton Boulevard roundabout is projected to operate at unacceptable LOS F for year 2035 weekday PM peak hour conditions, while the Twin Cities Road/East Stockton Boulevard roundabout is projected to operate at unacceptable LOS E. As mentioned previously, the City of Galt has identified long-term plans for full reconstruction of the Twin Cities Road/SR 99 interchange, which would improve traffic operations at these locations; however, project funding has not yet been identified and the anticipated completion year for this improvement is not yet known.

Detailed level of service calculation worksheets are provided in the **Appendix**.

4.8 No Project Traffic Signal Warrant Analysis

A planning-level assessment of the need for traffic signalization was conducted for the unsignalized study intersections for near-term (2018) and cumulative (2035) conditions without the proposed project using Warrant 3 (Peak Hour) from the 2012 CAMUTCD. This assessment found that there were no unsignalized study intersections that satisfy the peak hour warrant for signalization for near-term or cumulative weekday PM or Saturday peak hour conditions.

4.9 No Project Level of Service at Roadway Segments

Study roadway segment levels of service were evaluated based on near-term (2018) and long-term cumulative (2035) weekday and Saturday average daily traffic volumes. **Table 10** summarizes the near-term (2018) roadway segment levels of service.

Table 10 – Near-Term (2018) Roadway Segment Levels of Service

Roadway	Segment Extents	Target LOS	No. Lanes	Weekday		Saturday	
				ADT	LOS	ADT	LOS
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B

Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines*, July 2004, Table 2-Level of Service Criteria for Roadway Segments.

As shown in **Table 10**, the following roadway segments operate at unacceptable levels of service for near-term conditions without the proposed project:

- Twin Cities Road (SR-104) – Fermoy Way to Marengo Road
- Grant Line Road – Waterman Road to Bradshaw Road (Weekday & Saturday)
- Grant Line Road – Bradshaw Road to Wilton Road (Weekday)
- Grant Line Road – Wilton Road to Calvine Road (Weekday)
- Grant Line Road – Calvine Road to Jackson Road (Weekday)

It should be noted that the level of service for the segment of Grant Line Road from East Stockton Boulevard to Waterman Road, which currently operates at deficient LOS F, is projected to improve by 2018 in conjunction with planned widening of Grant Line Road along this segment.

Table 11 summarizes the cumulative (2035) roadway segment levels of service.

Table 11 – Cumulative (2035) Roadway Segment Levels of Service

Roadway	Segment Extents	Target LOS	No. Lanes	Weekday		Saturday	
				ADT	LOS	ADT	LOS
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B

Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines*, July 2004, Table 2-Level of Service Criteria for Roadway Segments.

As shown in **Table 11**, all study roadway segments are projected to operate at acceptable levels of service for cumulative conditions without the proposed project. Planned widening projects along Grant Line Road and Twin Cities Road are anticipated to provide additional capacity for roadway segments that are operating at unacceptable levels of service for existing and near-term conditions.

4.10 No Project Level of Service at Freeway Segments and Ramps

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035. As discussed in the existing conditions analyses, where HOV lanes exist, freeway segment analyses were limited to the mix-use travel lanes, which are expected to have significantly more congestion than the HOV lanes. For the purposes of this analysis, the proportion mainline traffic volume using the HOV lanes is assumed to remain at approximately 30% of the total mainline volume. Results of the near-term (2018) freeway mainline analyses are presented in **Table 12**.

Table 12 – Near-Term (2018) Freeway Mainline Levels of Service

Highway 99 Segment	No. Lanes	Target LOS	Weekday			Saturday		
			PM Peak Hour Volume	LOS	Density (pc/mi/ln)	PM Peak Hour Volume	LOS	Density (pc/mi/ln)
Northbound								
Between Ayers Lane and Walnut Avenue	2	D	3,169	D	29.6	2,241	C	20
Between Walnut Avenue and Twin Cities Road	2	D	2,897	D	26.4	2,240	C	20
Between Twin Cities Road and Mingo Road	2	D	2,990	D	27.4	2,267	C	20.3
Between Mingo Road and Arno Road	2	D	3,000	D	27.6	2,272	C	20.3
Between Arno Road and Dillard Road	2	D	3,025	D	27.8	2,291	C	20.5
Between Dillard Road and Grant Line Road	2	D	2,702	C	24.3	2,423	C	21.7
Between Grant Line Road and Elk Grove Boulevard	2	D	2,447	C	21.9	2,251	C	20.1
Between Elk Grove Boulevard and Bond Road[1]	2	D	2,464	C	22.1	2,204	C	19.7
Southbound								
Between Ayers Lane and Walnut Avenue	2	D	2,966	D	27.2	2,464	C	22.1
Between Walnut Avenue and Twin Cities Road	2	D	3,086	D	28.6	2,392	C	21.4
Between Twin Cities Road and Mingo Road	2	D	3,293	D	31.3	2,538	C	22.7
Between Mingo Road and Arno Road	2	D	3,298	D	31.3	2,543	C	22.8
Between Arno Road and Dillard Road	2	D	2,881	D	26.2	2,349	C	21
Between Dillard Road and Eschinger Road	2	D	2,786	C	25.2	2,415	C	21.6
Between Eschinger Road and Grant Line Road	2	D	2,715	C	24.5	2,361	C	21.1
Between Grant Line Road and Elk Grove Boulevard	2	D	2,367	C	21.2	2,235	C	20
Between Elk Grove Boulevard and Bond Road[1]	2	D	2,623	C	23.5	1,597	B	14.3

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Results of the near-term (2018) freeway ramp analyses are presented in **Table 13**.

Table 13 – Near-Term (2018) Ramp Junction Levels of Service

Interchange Location	Target LOS	Junction Type	Weekday PM Peak Hour		Saturday Peak Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 99 Ramps at Twin Cities Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C
W Stockton Boulevard/SR-99 SB On-Ramp (northside)	D	Merge	28.6	D	22.8	C
W Stockton Boulevard/SR-99 SB On-Ramp (southside)	D	Merge	30.2	D	23.9	C
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C
SR 99 Ramps at Mingo Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C
SR 99 Ramps at Grant Line Road						
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in **Table 12** and **Table 13**, all study freeway ramps are projected to operate at acceptable levels of service for near-term conditions without the proposed project.

Results of the cumulative (2035) freeway mainline analyses are presented in **Table 14**.

As shown in **Table 14**, the following freeway mainline segments are projected to operate at unacceptable levels of service for cumulative (2035) conditions without the proposed project:

- SR 99 – between Ayers Lane and Walnut Avenue (NB & SB)
- SR 99 – between Walnut Avenue and Twin Cities Road (NB & SB)
- SR 99 – between Twin Cities Road and Mingo Road (NB & SB)
- SR 99 – between Mingo Road and Arno Road (NB & SB)
- SR 99 – between Arno Road and Dillard Road (NB & SB)
- SR 99 – between Arno Road and Dillard Road (NB)
- SR 99 – between Dillard Road and Grant Line Road (NB)
- SR 99 –Grant Line Road and Elk Grove Boulevard (NB)
- SR 99 – Elk Grove Boulevard and Bond Road (NB)

Table 14 – Cumulative (2035) Freeway Mainline Levels of Service

Highway 99 Segment	No. Lanes	Target LOS	Weekday			Saturday		
			PM Peak Hour Volume	LOS	Density (pc/mi/ln)	PM Peak Hour Volume	LOS	Density (pc/mi/ln)
Northbound								
Between Ayers Lane and Walnut Avenue	2	D	3,770	**E**	**39.1**	3,462	D	33.7
Between Walnut Avenue and Twin Cities Road	2	D	3,760	**E**	**38.9**	3,453	D	33.6
Between Twin Cities Road and Mingo Road	2	D	4,040	**E**	**45.0**	3,553	**E**	**35.2**
Between Mingo Road and Arno Road	2	D	4,050	**F**	**45.2**	3,568	**E**	**35.4**
Between Arno Road and Dillard Road	2	D	4,085	**F**	**46.1**	3,725	**E**	**38.2**
Between Dillard Road and Grant Line Road	2	D	3,700	**E**	**37.8**	3,619	**E**	**36.3**
Between Grant Line Road and Elk Grove Boulevard	2	D	3,664	**E**	**37.1**	3,449	D	33.5
Between Elk Grove Boulevard and Bond Road[1]	2	D	3,594	**E**	**35.9**	3,510	D	34.5
Southbound								
Between Ayers Lane and Walnut Avenue	2	D	4,210	**F**	**49.5**	3,954	**E**	**42.9**
Between Walnut Avenue and Twin Cities Road	2	D	4,270	**F**	**51.3**	3,713	**E**	**38.0**
Between Twin Cities Road and Mingo Road	2	D	4,340	**F**	**53.6**	3,948	**E**	**42.8**
Between Mingo Road and Arno Road	2	D	4,345	**F**	**53.8**	3,952	**E**	**42.9**
Between Arno Road and Dillard Road	2	D	2,998	D	27.5	2,743	C	24.7
Between Dillard Road and Eschinger Road	2	D	3,119	D	29.0	2,842	C	25.8
Between Eschinger Road and Grant Line Road	2	D	2,744	C	24.8	2,571	C	23
Between Grant Line Road and Elk Grove Boulevard	2	D	2,690	C	24.2	2,602	C	23.3
Between Elk Grove Boulevard and Bond Road[1]	2	D	2,940	D	26.9	2,433	C	21.8

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).
(2) Locations operating below established LOS target shown in **Bold**.

Results of the cumulative (2035) freeway ramp analyses are presented in **Table 15**.

As shown in **Table 15**, the following freeway ramps are projected to operate at unacceptable levels of service for cumulative (2035) conditions without the proposed project:

- West Stockton Boulevard/SR-99 SB Off-Ramp
- West Stockton Boulevard/SR-99 SB On-Ramp (north side)
- West Stockton Boulevard/SR-99 SB On-Ramp (south side)
- East Stockton Boulevard/SR-99 NB Off-Ramp
- East Stockton Boulevard/SR-99 NB On-Ramp
- West Stockton Boulevard/SR-99 SB Off-Ramp
- West Stockton Boulevard/SR-99 SB On-Ramp
- East Stockton Boulevard/SR-99 NB Off-Ramp
- East Stockton Boulevard/SR-99 NB On-Ramp

Table 15 – Cumulative (2035) Ramp Junction Levels of Service

Interchange Location	Target LOS	Junction Type	Weekday PM Peak Hour		Saturday Peak Hour	
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
SR 99 Ramps at Twin Cities Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**
W Stockton Boulevard/SR-99 SB On-Ramp (northside)	D	Merge	**36.8**	**E**	33.9	D
W Stockton Boulevard/SR-99 SB On-Ramp (southside)	D	Merge	**39.3**	**F**	34.6	D
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D
SR 99 Ramps at Mingo Road						
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**
SR 99 Ramps at Grant Line Road						
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound
2. Locations operating below established LOS target shown in **Bold**.

Additional detail of the analysis is provided in the **Appendix**.

5. ALTERNATIVE A – PROPOSED TWIN CITIES CASINO RESORT

Alternative A represents the evaluation of traffic conditions with the construction of the proposed casino and hotel at the preferred location and size. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

5.1 Proposed Site Uses

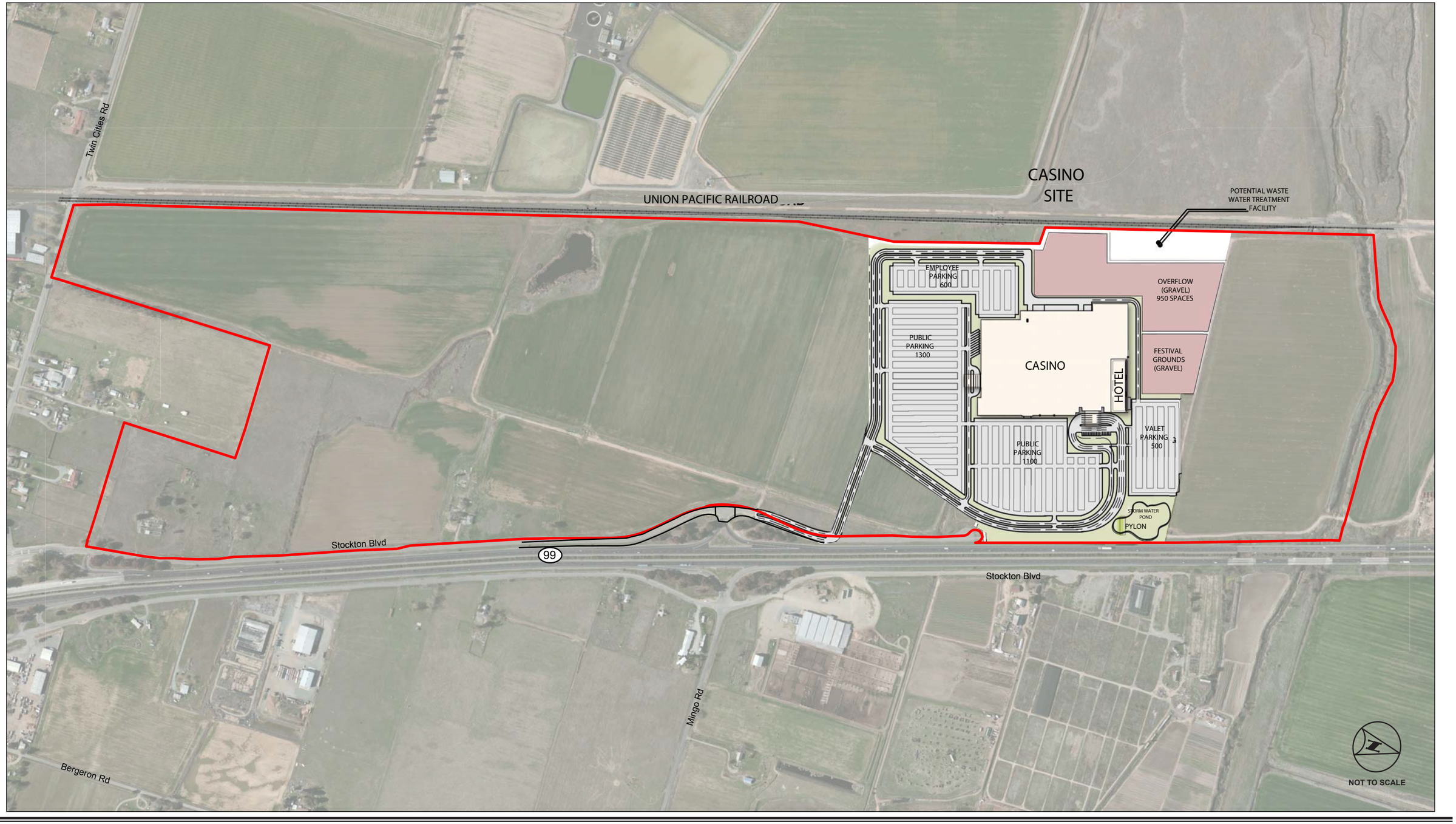
The Alternative A casino and hotel is proposed to be located as shown in **Figure 1**, just west of SR 99 and north of Twin Cities Road near Mingo Road. This location is just north of the Galt City Limit, but within the City's Sphere of Influence.

Figure 12 shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities are located in the northern portion of the parcel, which currently includes predominantly agricultural uses.

The project site includes a main casino building area of approximately 376,500 square feet, which includes casino gaming area, restaurants, food court, event center, banquet facilities, lobby, back of house and other ancillary functions. In addition, the project is planned to include up to 302 hotel rooms, primarily for casino guests. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Casino Building Area – 376,500 s.f.
- Gaming Floor Area – 110,260 s.f.
- Gaming Positions – 2,104 positions.
- Convention Area – 47,000 s.f.
- Hotel Rooms – 302 Rooms

Wilton Rancheria Casino Project



Kimley»Horn

Figure 12

Alternative A Site Plan

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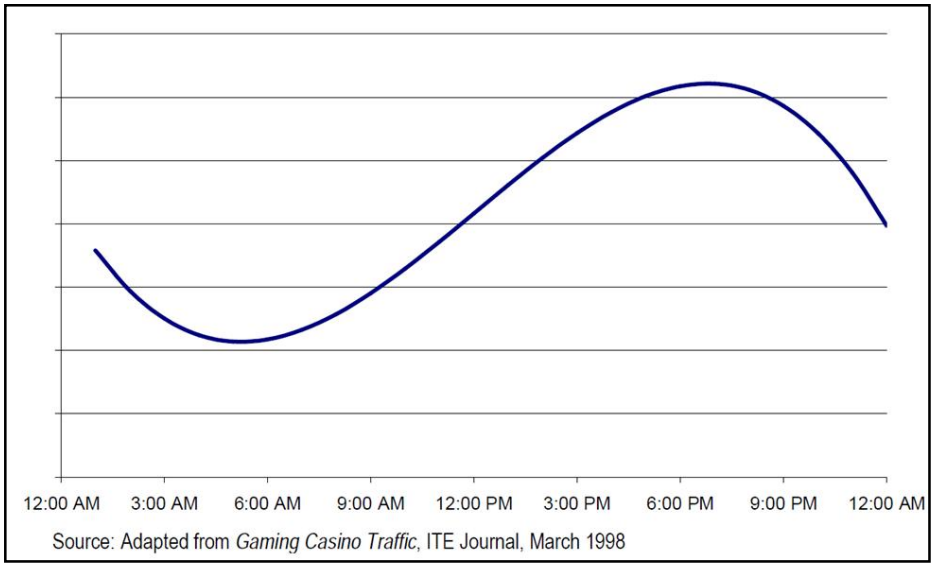
5.2 Site Access

The main project access is from West Stockton Boulevard with a new intersection leg to be constructed at the west side of the existing West Stockton Boulevard/SR 99 SB Ramps unsignalized intersection near Mingo Road (Intersection #7). The project is assumed to construct the new western leg of this intersection two approach lanes and two receiving lanes and the intersection is assumed to be signalized in conjunction with the project. It should be noted that full access to SB SR 99 is conveniently provided from the project driveway intersection at West Stockton Boulevard; however access to/from NB SR 99 is limited, as the Mingo Road interchange does not include an existing bridge connecting the project site to the east side of SR 99. For this reason, project traffic traveling to/from SR 99 must navigate to and from the site via the SR 99 NB ramps near Twin Cities Road.

5.3 Project Trip Generation

Trip Generation for Casino Uses

Trip generation for tribal gaming facilities generally peaks on Saturday evenings; however, background traffic on adjacent streets is lower than during peak weekday periods, making the overall number of vehicles on the road lower as well. In addition, casino facilities are open 24/7 and typically do not generate extreme peaks like other uses. Instead, casino traffic follows a smoother curve that builds steadily from early morning until about 7:00 PM, after which traffic levels slowly decline (as shown in **Figure 13** below). Based on existing traffic volume information and expected trip generation from the Proposed Project, it was determined that the weekday (Thursday) PM and Saturday PM peak periods represent the worst case period to evaluate. It is during these periods that the combination of background traffic and casino traffic are at the highest levels of the weekday and weekend.



Source: Adapted from *Gaming Casino Traffic*, ITE Journal, March 1998

Figure 13: Variation in Native American Casino Trip Generation by Time of Day

Trip generation for development projects is typically based on rates contained in the most recent edition of the Institute of Transportation Engineers' (ITE) publication *Trip Generation Manual*. This manual is a standard reference used by jurisdictions throughout the Country and is based on actual trip generation studies at multiple locations in areas of various populations. However, ITE's *Trip Generation Manual* does not have a land use category for casinos similar to the type proposed for the Wilton Rancheria Casino Project. ITE trip rates for hotel/casinos represent sites of the nature commonly found in Las Vegas and Reno. However, for this reason, the information is generally not applicable to this smaller, more rural project. As a result, the trip generation estimates developed for this project rely on information obtained from other Native American casino and hotel facilities in California.

For the purposes of this study, casino trip generation research focused on review of available data associated with two existing tribal casinos in northern California:

- Thunder Valley Casino (previously referred to as Auburn Rancheria Gaming Facility)
- Cache Creek Casino

Thunder Valley Casino, located near the City of Lincoln, is considered by many gaming operators to be one of the most successful casinos in California. It offers slot machines, table games, a wide variety of restaurants, bars, and professional entertainment similar to the proposed Wilton Rancheria Casino. Thunder Valley's location is within roughly 30 miles of over 1.9 million people residing in five Sacramento area counties (2000 census). Cache Creek Casino, located about 50 miles northwest of Sacramento, provides a similar example of a successful existing casino in the region. The proposed Wilton Rancheria Casino is located within similar proximity to population concentrations in the Sacramento region, San Joaquin County to the south and the greater San Francisco Bay Area to the southwest. Based on this information, comparisons between Thunder Valley Casino, Cache Creek Casino, and Wilton Rancheria Casino are considered reasonable and valid.

As part of a traffic impact study prepared for the Thunder Valley Casino, trip generation was collected at four northern California gaming facilities.[6] Later, Kimley-Horn supplemented the traffic study data with more recent information collected in 2005 at the completed Thunder Valley Casino.[7] Similarly, the traffic study prepared the proposed expansion of Cache Creek Casino included traffic data collection at the

[6] *Revised Draft Traffic Impact Study for the Auburn Rancheria Gaming Facility*, Fehr & Peers, October, 2000.
[7] *Draft Existing Conditions Traffic Study – Thunder Valley Casino Expansion Project*, Kimley-Horn and Associates, Inc., June, 2005.

existing casino resort, which was used to establish trip generation rates for the site[8]. The observed trip generation rates for Thunder Valley Casino and Cache Creek Casino (pre-expansion) are listed in **Table 16** below.

Table 16 – Observed Trip Generation for Similar Casino Sites

	Thunder Valley Casino	Cache Creek Casino
Casino Characteristics		
Total Building Area(c)	230,000 s.f.	N/A
Gaming Positions	3,400	3,520
Gaming Floor Area	85,000	94,500
Trip Generation Rates		
Weekday PM Peak Hour	0.246 trips/gaming position	0.177 trips/gaming position
	9.84 trips/1,000 s.f. gaming floor area	6.61 trips/1,000 s.f. gaming floor area
Saturday PM Peak Hour	0.460 trips/gaming position	0.252 trips/gaming position
	18.40 trips/1,000 s.f. gaming floor area	9.40 trips/1,000 s.f. gaming floor area

(a) Thunder Valley Casino trip generation rates based on data collected at the Thunder Valley Casino in 2005.
(b) Cache Creek Casino trip generation rates based on data collected at the Cache Creek Casino in 2010.
(c) Total floor area includes gaming area, restaurants, back-of-house, and other non-hotel ancillary uses.

The trip generation rates shown in the table above include patrons to the slot machines and table games, as well as ancillary uses such as restaurants, bars, back-of-house, employees arriving and departing on a shift change, and all of the general activities occurring at the casino during the peak hour. Because all functions are included in the rates summarized above, separate calculations for the non-casino functions (excluding hotel and convention areas) are not necessary, nor appropriate. Excluding the restaurants and other ancillary uses does not suggest that they do not generate trips; rather it is a statement that the methodology already incorporates the trips in the calculated rates based on gaming floor area.

Trip generation for casinos can be based on one or more independent variables[9], including gaming floor area, number of gaming positions, or overall casino floor area. The gaming area or number of gaming positions is considered by most professionals to be a more reliable factor to determining the number of trips likely to be generated for a facility such as the Wilton Rancheria Casino, rather than the entire building floor area. Gaming area is the "engine" that brings trips to the facility. The other functions such as

[8] *Final Traffic Impact Study – Cache Creek Casino Resort Event Center Project*, Kimley-Horn and Associates, Inc., June, 2010.
[9] Independent variable is a physical, measureable and predictable unit describing the study site or generator than can be used to predict the value of the dependent variable (in this case trip ends). *Trip Generation Manual*, 9th Edition, Institute of Transportation Engineers,

restaurants, hotels, and shopping are used to keep patrons at the facility for a longer period of time.

The Alternative A project is proposed to include 376,500 square feet of total floor area for the casino and related functions, 110,260 square feet of gaming floor area, 2,104 gaming positions, plus up to a 302 room hotel. The casino development in this alternative has a larger overall building area and gaming floor area, but fewer gaming positions than the facilities documented in the Thunder Valley Casino and Cache Creek studies.

Although both the Thunder Valley Casino and Cache Creek Casino provide good examples of active casino developments similar in scale and proximity to regional population concentrations to the proposed project, ultimately, the observed trip generation rates from the Thunder Valley Casino, using total gaming floor area as the independent variable, were used to estimate the casino trips for the Wilton Rancheria project. The Thunder Valley Casino rates provide a reasonable, yet more conservative assumption for this traffic study, particularly when using gaming floor area as the independent variable. Using a trip generation rate that is higher ensures a conservative approach to identifying project impacts and associated mitigations.

Daily trip generation rates for casino uses were not collected in the Thunder Valley Casino Study; thus, for the purposes of this study, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio and Saturday peak hour/Daily trip generation ratio documented in published traffic studies for other comparable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used in traffic studies for other similar tribal casino projects and are in line with the anticipated daily vehicle trips that would be generated based on the daily customer and employee totals projected for the proposed Wilton Rancheria Casino project. For this study, the trip generation rates used for casino uses are summarized as follows:

- Weekday Daily Peak Hour: 82.00 trips/1000 square feet gaming floor area
- Weekday PM Peak Hour: 9.84 trips/1000 square feet gaming floor area
- Saturday Daily: 131.44 trips/1000 square feet gaming floor area
- Saturday PM Peak Hour 18.40 trips/1000 square feet gaming floor area

Pass-By and Diverted Link Trips for Casino Uses

Certain types of land uses attract trips that are already on the adjacent road that stop as they pass by the site, or divert to the site from a nearby road. These are not new vehicle trips, but are considered to be pass-by trips or diverted link trips.

Pass-by trips represent trips already on the adjacent street which stop as they pass by the site as a matter of convenience on their path to another destination. These trips enter and exit the site at the driveways but are not new trips on the surrounding roadway network.

Diverted link trips also are trips already on the road, but require a diversion from their current roadway to another roadway to access the site. Diverted link trips are common for retail- and entertainment-oriented developments located adjacent to highways or interstates. Like pass-by, diverted link trips are not new trips on the regional roadway network.

The location of the project site also influences the amount of pass-by and diverted link trips. If a project is located along a major roadway where drivers can conveniently turn from the roadway into a site driveway, then pass-by is generally greater and diverted link is lower. Conversely, if the project is located in a somewhat isolated location without direct access to a major street, but within the vicinity of a major highway, then pass-by is often lower and diverted link is greater.

Because the existing volumes along West Stockton Boulevard adjacent to the proposed site access for project are relatively low[10], no pass-by reductions were applied to the trip generation estimates.

Due to the proximity of the site to the SR 99 freeway, which carries over 70,000 vehicles per day, a considerable proportion of the project trips are anticipated to be diverted link trips from the freeway. No empirical data was readily available at this time to establish specific pass-by rate/diverted link rates for casino uses; thus a conservative estimate of 10% diverted link trips was assumed for casino alternatives at the Twin Cities Site and Mall Site in Elk Grove. A lesser estimate of 3% diverted link trips was assumed for the casino alternatives at the Historic Rancheria site, as this location is farther from SR 99 and would be expected to attract fewer diverted trips from the freeway. The assumed diverted link trip percentages are within 15% maximum reduction permitted for pass-by/diverted link trips per Caltrans guidance.[11]

Trip Generation for Other Uses

Hotel Trip Generation

Trip generation for the hotel use proposed as part of Alternative A was calculated based on data from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 9th Edition*, but was also adjusted with the assumption that most guests at the hotel would also be guests of the casino. Typically, casinos with on-site hotel facilities implement a pricing structure for the rooms that favors casino guests. Therefore, the ITE hotel trip generation rate was reduced by 3/4 to account for internal capture to and from the casino. Reducing the rate is based on professional judgment and is consistent with the casino resort trip generation research and adjustments demonstrated in the traffic studies for other northern California gaming facilities, such as the Red Hawk

[10] Existing weekday and Saturday daily traffic volumes along West Stockton Boulevard between the SR-99 southbound ramps and the proposed Alternative C site access are less than 150 vehicles per day.
[11] Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002).

Casino[12] and Graton Rancheria Casino[13], as well as the adjustments documented for on-site hotel uses at tribal gaming facilities in the San Diego Region[14].

Convention Facility Trip Generation

Project Alternative A includes a 47,000 square foot on-site convention facility. These facilities are typically used for a variety of events, such as conventions, concerts, performances, etc. Based on traditional space-planning practices for event facilities, the estimated capacity of the event area is calculated to be approximately 3,130 people.[15] In accordance with the trip generation methodology utilized for the Cowlitz Casino Project, the peak trip generation for the convention facility assumes an "85th percentile event" for this study, which represents an event with attendance equal or greater than 85% of all events held at this location during the year. This correlates to an event with an attendance of about 2,660 people. For most events, it is assumed that a number of attendees will stay at the on-site hotel and walk to the convention facility. For this analysis, it is assumed that 25% of the on-site hotel rooms would be occupied by event attendees – the remaining event attendees would drive to the location.

Auto occupancy rates and arrival patterns of various types of events were used to develop expected vehicle trip generation rates for the convention facility. The majority of the trips generated by the facility are expected to occur outside of the PM peak hour, as most events will likely have a start time between 7:00 and 8:00 PM. For the trip generation calculations, it was assumed that 15% of the patrons attending a capacity-seating event would arrive during the peak hour, with an expected vehicle occupancy rate of 2.2 persons per vehicle. Based on these estimates, approximately 175 total vehicle trips would be expected to be generated by the on-site convention facility during the weekday and Saturday PM peak hours. These assumptions are largely consistent with the assumptions used for event center trip generation estimates for other traffic studies for tribal gaming facilities in northern California, including the Thunder Valley Casino Expansion study, Cache Creek Resort Event Center study and the traffic study for the Red Hawk Casino.

Trip generation estimates for the Alternative A project were calculated based on the previous discussions and is summarized in **Table 17**. As seen in the table, the project is expected to generate 11,083 new weekday trips, 2,055 new Saturday trips, 1,197 new trips in the weekday PM peak hour and 2,029 new trips in the Saturday PM peak hour. Only weekday and Saturday PM peak period traffic conditions were evaluated in this

[12] *Shingle Springs Interchange Project – Final Environmental Impact Report/Environmental Assessment,* David Evans and Associates, Inc., September 2002.
[13] *Graton Rancheria Casino and Hotel – Final Traffic Impact Study Update,* Kimley-Horn and Associates, Inc., January 2013.
[14] *Traffic Needs Assessment of Tribal Development Projects in the San Diego Region,* County of San Diego, March 2003.
[15] Convention area capacity estimated at 3,130, assuming an average density of 15 square feet of convention area space per guest.

study because these periods represent the time periods where the project will contribute to the greatest amount of congestion and potential mitigation.

Table 17 – Alternative A Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Casino	N/A	110,260	SF Gaming Floor Area	9,041	510	575	1,085	14,493	954	1,075	2,029
Diverted Link Trips (10%) [4]				(904)	(54)	(54)	(108)	(1,449)	(102)	(101)	(203)
Convention Area[5]	N/A	3,130	Seats	2,330	140	35	175	2,330	140	35	175
Hotel	310	302	Rooms	616	23	22	45	619	30	24	54
Net New Vehicle Trips				**11,083**	**619**	**578**	**1,197**	**15,993**	**1,022**	**1,033**	**2,055**

SF -Square Feet

Casino[2]			
Weekday Daily	T = 82.00 x (1000's of SF GFA)	50% In	50% Out
Saturday Daily	T = 131.44 x (1000's of SF GFA)	50% In	50% Out
Weekday PM Peak Hour	T = 9.84 x (1000's of SF GFA)	47% In	53% Out
Saturday Peak Hour	T = 18.40 x (1000's of SF GFA)	47% In	53% Out
Hotel (ITE 9th Edition)[6]			
Weekday Daily (ITE 310)	T = 8.17 x (Rooms)	50% In	50% Out
Saturday Daily (ITE 310)	T = 8.19 x (Rooms)	50% In	50% Out
Weekday PM Peak Hour (ITE 310)	T = 0.15 x (Rooms)	51% In	49% Out
Saturday Peak Hour (ITE 310)	T = 0.18 x (Rooms)	56% In	44% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Peak hour casino trip generation rates based on surveyed existing trip generation for existing Thunder Valley Casino. Reference: *Draft Existing Conditions Traffic Study - Thunder Valley Casino Expansion Project (Kimley-Horn and Associates, Inc., 2005).* Daily trip generation rates for casino uses were not presented in the Thunder Valley Casino Study; thus, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio documented in published traffic studies for other comprable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used for simililar projects in other tribal casino studies and with the daily customer and employee totals projected for the proposed project.

(3) The proposed casino facility includes other auxiliary/internal uses in addition to gaming area, such as restaurants, back of house, lounges, etc. However, only the casino gaming floor area (GFA) is used as the independent variable for the purposes of estimating trip generation. This is because the trip generation rates use GFA as the independent variable, and were developed based on empirical data from similar existing casino facilities, and include the trips associated with all of the casino uses (gaming areas, restaurants, lounges, back of house, etc.), excluding hotel facilities and convention space.

(4) The project site is located adjacent to State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 10%. This adjustment is likely conservative and is within the range identified by Caltrans' guidance for pass-by/diverted link trip reductions for retail-oriented development (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002). Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the casino trip generation estimates.

(5) Trip generation for the proposed 47,000 s.f. convention area was developed based on the estimated number of attendees. The maximmum number of event attendees/seats was estimated to be 3,130 people, based on an average of 15 s.f. per attendee, which is consistent with industry best practices for conference/event space planning. For the purposes of this traffic analysis, an 85th percentile event is assumed (2,661 attendees), which represents an event with attendance equal or greater than 85% of all the planned events at this location. It is assumed that when convention/meeting activities are scheduled, 25% of the 302 on-site hotel rooms would be occupied by event attendees with an average occupancy of 1.3 attendees per room; thus 98 event attendees would stay on-site, and not drive to/from an event. The remaining attendees (2,563) would drive to the site. Assuming an average auto occupancy of 2.2 people per vehicle, approximately 1,165 vehicles would attend an 85th percentile event. The majority of event trips are anticipated to occur outside of the PM peak traffic period (4:00 PM to 6:00 PM), as events typically have a start time between 7:00 PM and 8:00 PM. Based on review of other available traffic studies for tribal gaming facilities, it was assumed that 15% of event attendees would arrive during the peak hour.

(6) Trip rates for Hotel based on ITE *Trip Generation Manual*, *9th Edition*. Trip generation rate reduced by 75% to account for internal capture to/from casino.

5.4 Project Trip Distribution and Assignment

Because of the unique nature of casino developments, customers and employees are expected to travel not only from nearby locations, but also from the greater Sacramento region and portions of the San Francisco Bay Area. In order to establish the trip distribution for the Proposed Project and each of the project alternatives, Kimley-Horn reviewed the proposed uses for each alternative and their proximity to the surrounding population centers. An initial trip distribution estimate was developed for each casino project alternative by using a basic gravity model that accounts for the population size of various cities and communities in the region and their distance from the proposed project site. The relative strength of the attraction between the project site and these population concentrations is estimated by dividing the population of city/community by the square of the distance from the project. The initial distribution estimates developed using this gravity model were refined based on knowledge of the existing traffic flow patterns, geographical location of the project site, and connectivity to the roadway network, area demographics, and engineering judgment. The location of other casino sites within the region was also accounted for in determining the regional draw to the casino project alternative sites.

It should be noted that initially, Kimley-Horn consulted with Sacramento Area Council of Governments (SACOG) staff to determine if the SACOG regional travel demand forecasting model would be an appropriate tool to use for developing trip distribution for the proposed casino project alternatives. Ultimately, SACOG staff confirmed that, due to the limitations of the model and the unique travel characteristics associated with this type of trip generator, it would be difficult for the model to accurately project the trip distribution for the casino project without considerable manual adjustments and fine-tuning. Therefore, the regional travel demand model was not used for the purposes of developing trip distribution for this study.

For Alternative A, much of the casino project trips are expected to travel to/from SR 99 with origins/destinations in Elk Grove and Sacramento to the north, and Lodi and Stockton to the south. Based on the likely customer and employee base for the site and orientation of the regional roadway network, it was estimated that approximately 58% of the project traffic would be distributed to destinations north of the site – the vast majority of these trips using SR-99 and a smaller proportion using Grant Line Road and Dillard Road to/from communities in eastern Sacramento County and El Dorado County. Approximately 15% of the project trips would be distributed to destinations west of the site via Twin Cities Road to account for connecting traffic from I-5 and communities in the San Francisco Bay Area. Approximately 1% of the project trips would be distributed to areas east of Galt via Twin Cities Road and approximately 3% of project trips would be distributed within the City of Galt. Approximately 23% of the project traffic distributed to destinations south of the site via SR-99.

For the proposed project and all project alternatives that identify project trips distributed to areas in eastern Sacramento County and El Dorado County via Grant Line Road, the

assumed trip distribution using Grant Line Road is assumed to be slightly higher for the long-term cumulative (2035) traffic analysis scenario with the ultimate completion of the Capital SouthEast Connector Project, which will add capacity to the Grant Line Road corridor.

Figure 14 illustrates project traffic assigned to the study area based on the assumed trip distribution for Twin Cities Casino project alternatives (Alternative A and B).

Figure 15 and **Figure 16** show the Alternative A project traffic assignment for near-term weekday and Saturday PM peak hour conditions. **Figure 17** and **Figure 18** show the Alternative A project traffic assignment for long-term cumulative (2035) weekday and Saturday PM peak hour conditions.

5.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative A project. **Figure 19** and **Figure 20** illustrate the combined near-term turning movement volumes at the study intersections.

5.6 Long-Term Plus Project Traffic Volumes

Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative A project. **Figure 21** and **Figure 22** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

5.7 Alternative A LOS Conditions and Impacts at Intersections

Traffic operations were evaluated under the following development conditions:

- Near-term conditions with Alternative A (year 2018)
- Long-term cumulative conditions with Alternative A (year 2035)

Results of the analysis are presented in **Table 18** and **Table 19**, respectively. Additional detail is provided in the **Appendix**.

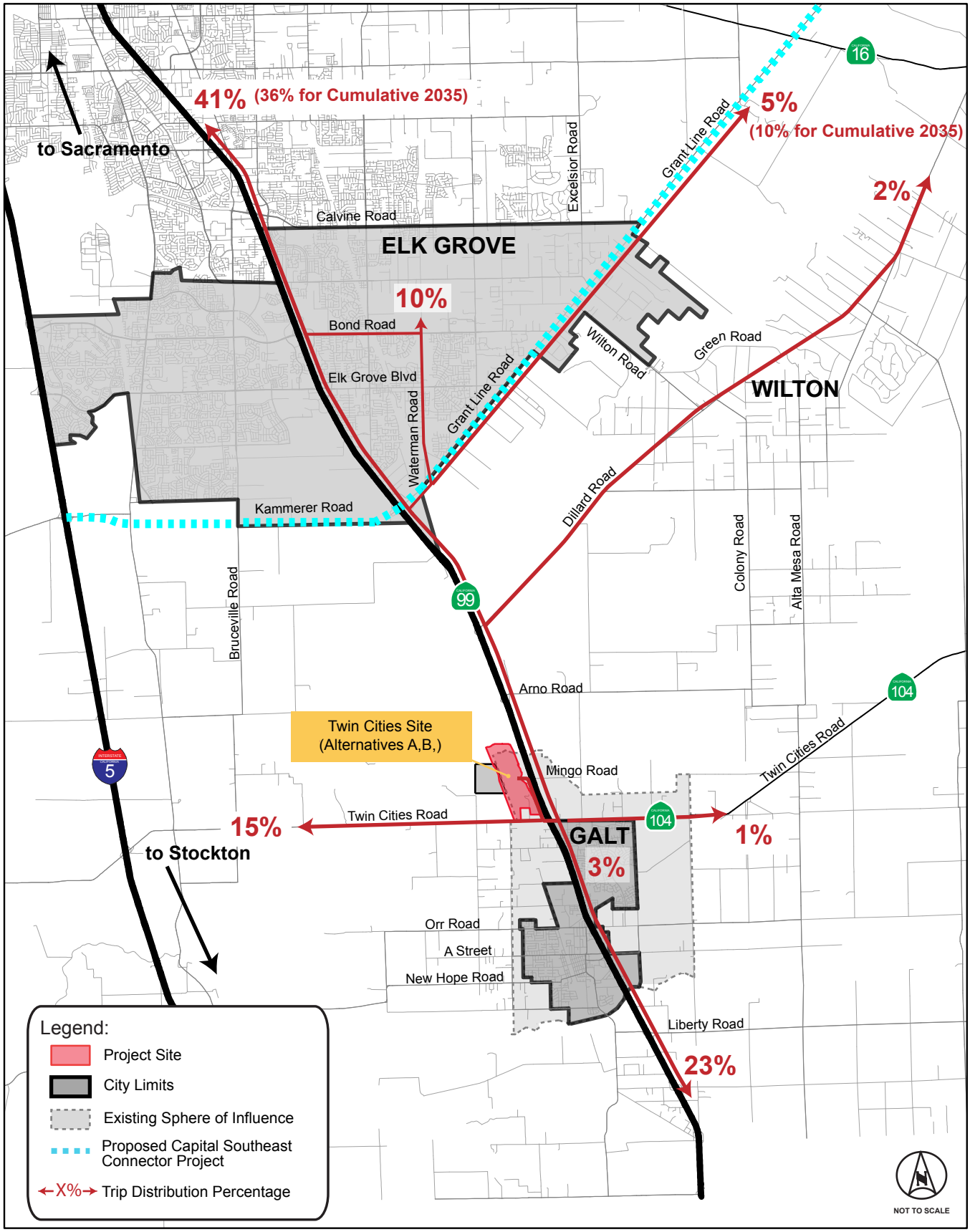


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Figure 14

Project Trip Distribution - Twin Cities Site (Alternatives A, B)

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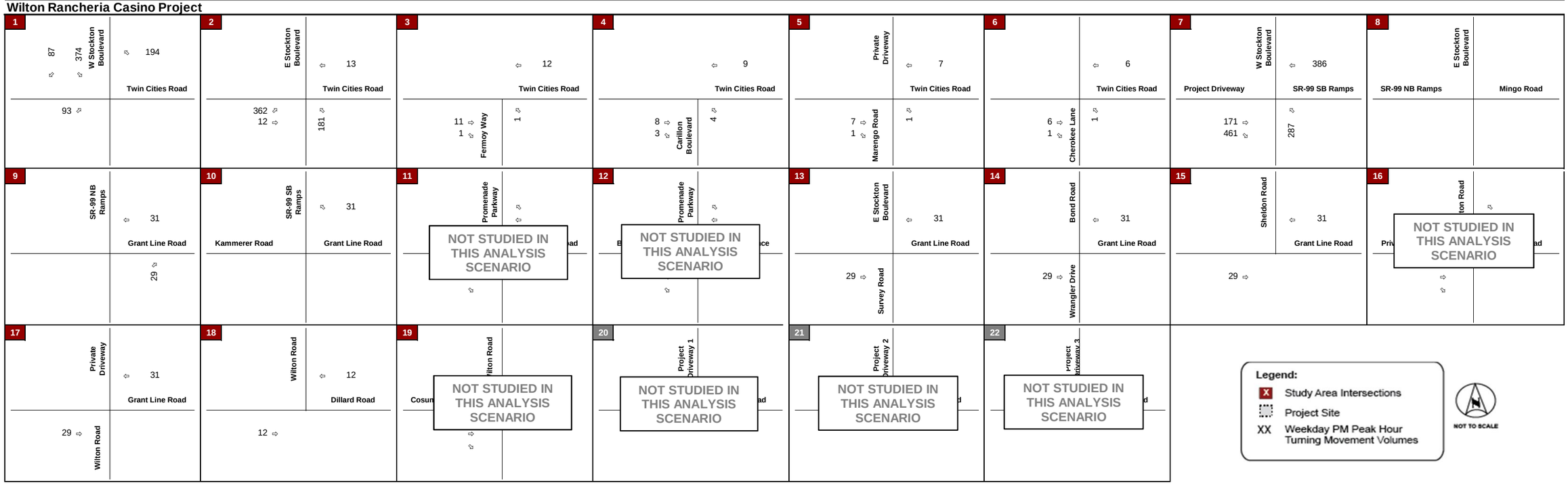
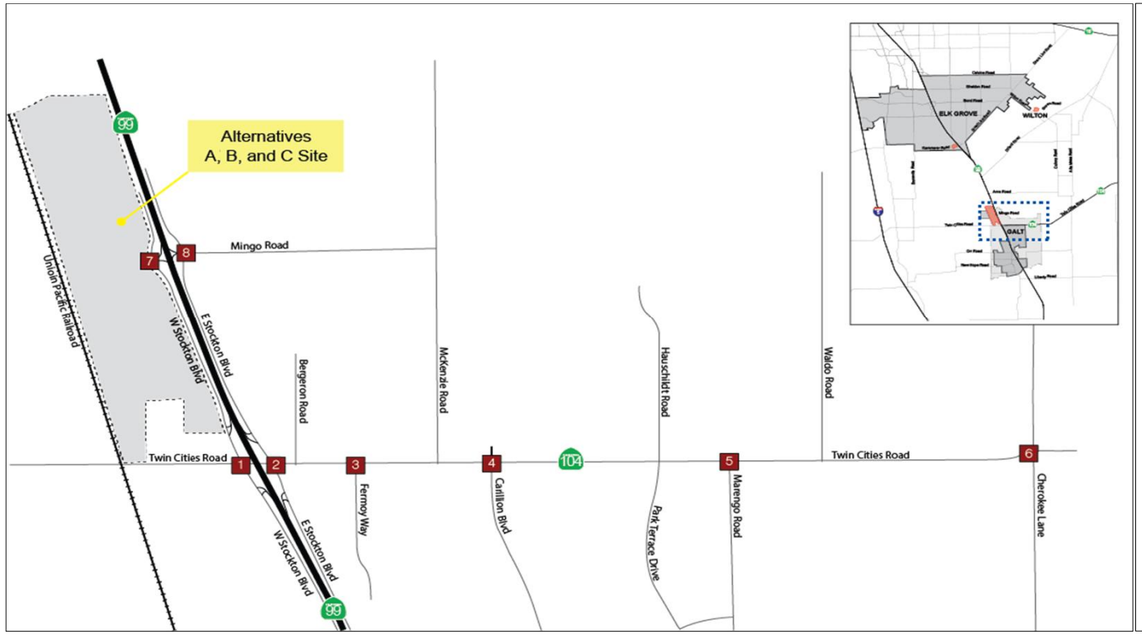
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

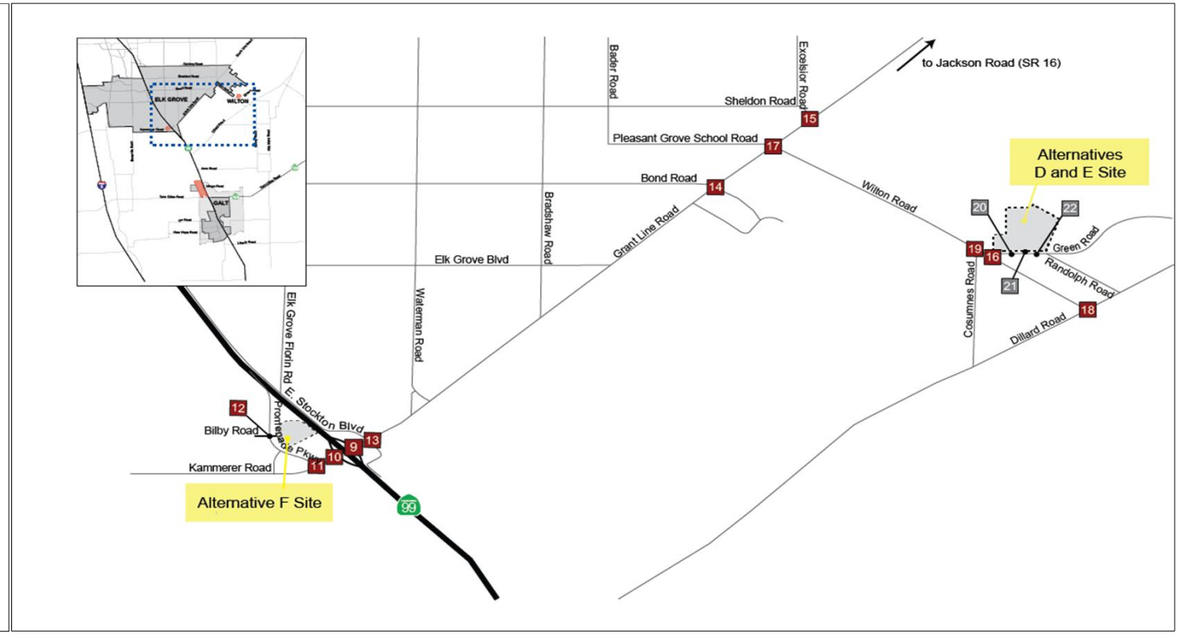


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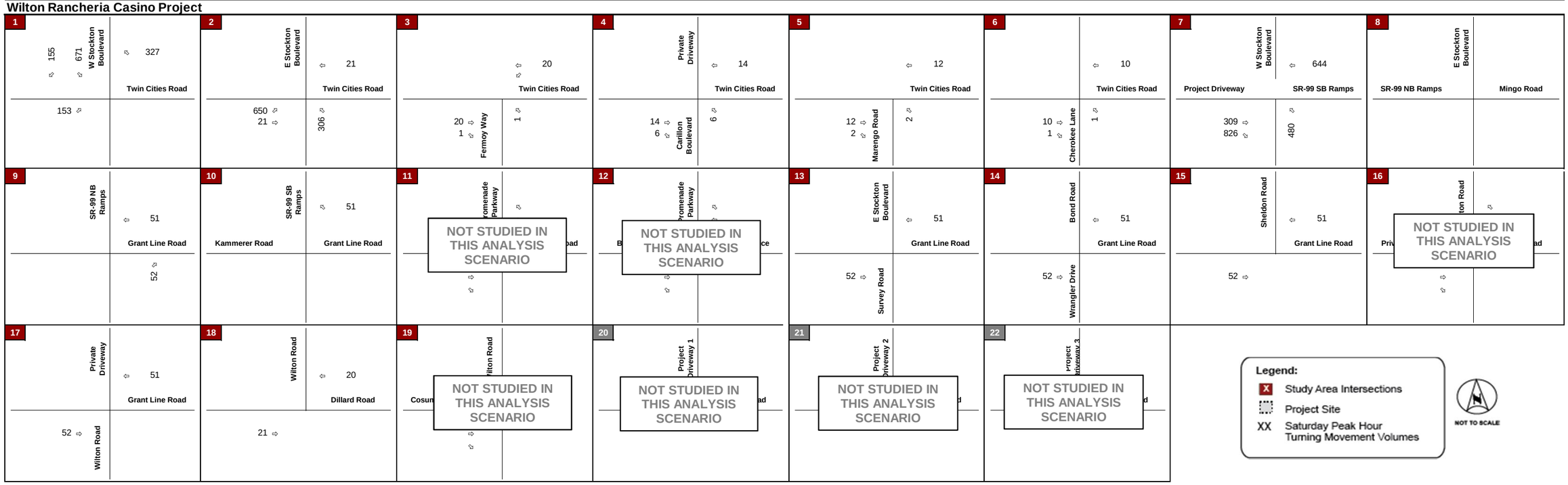
FIGURE 15

ALTERNATIVE A - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



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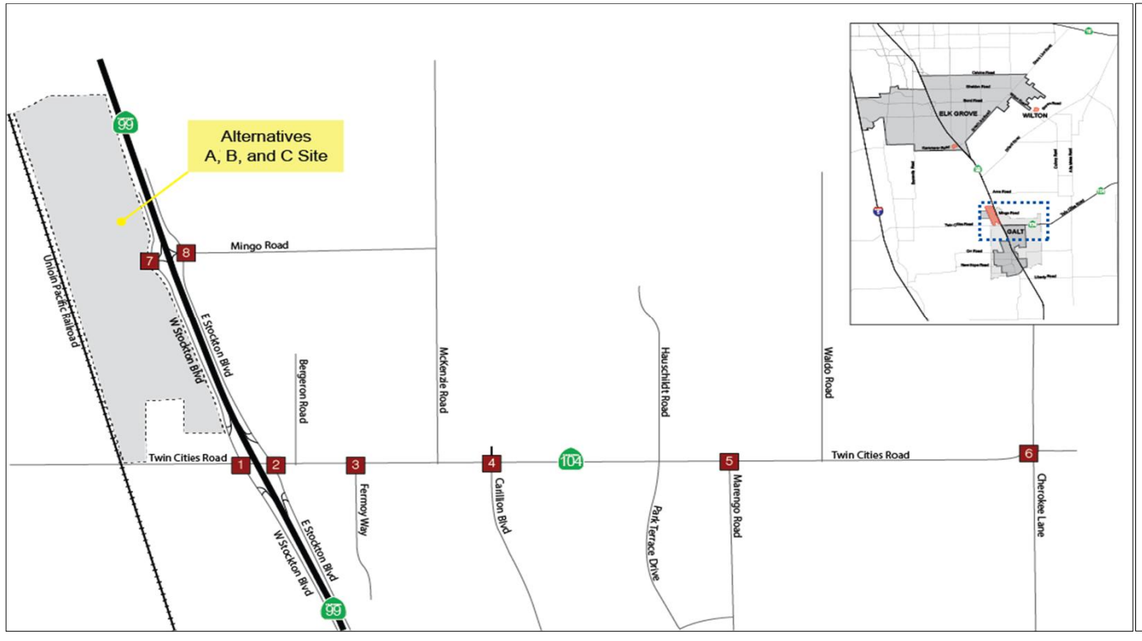

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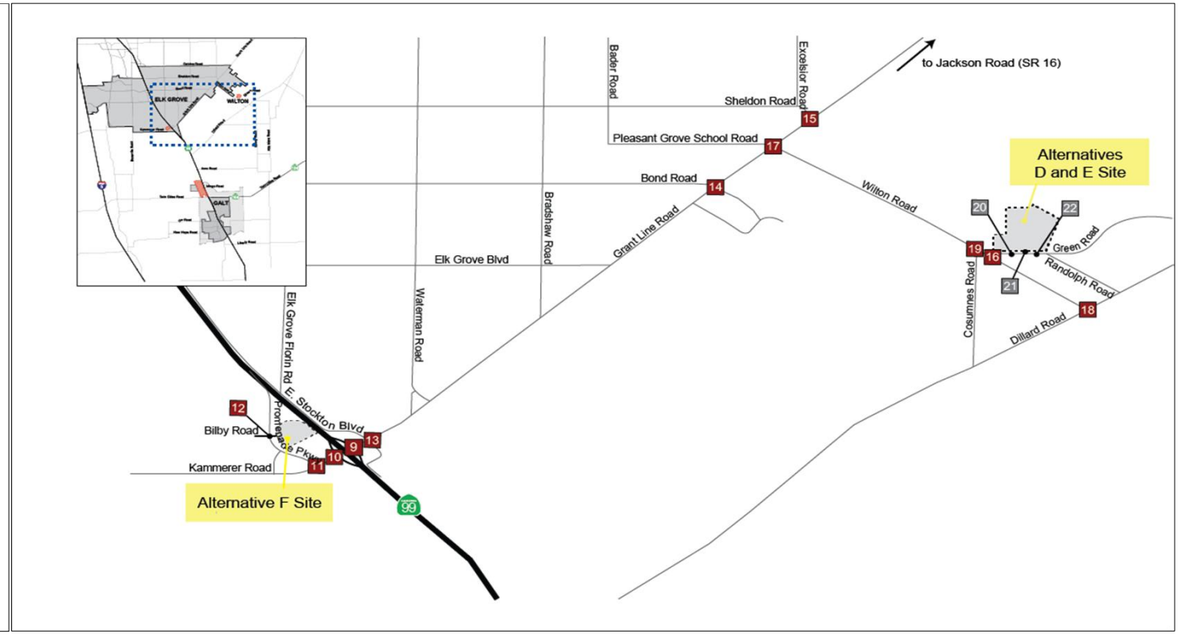

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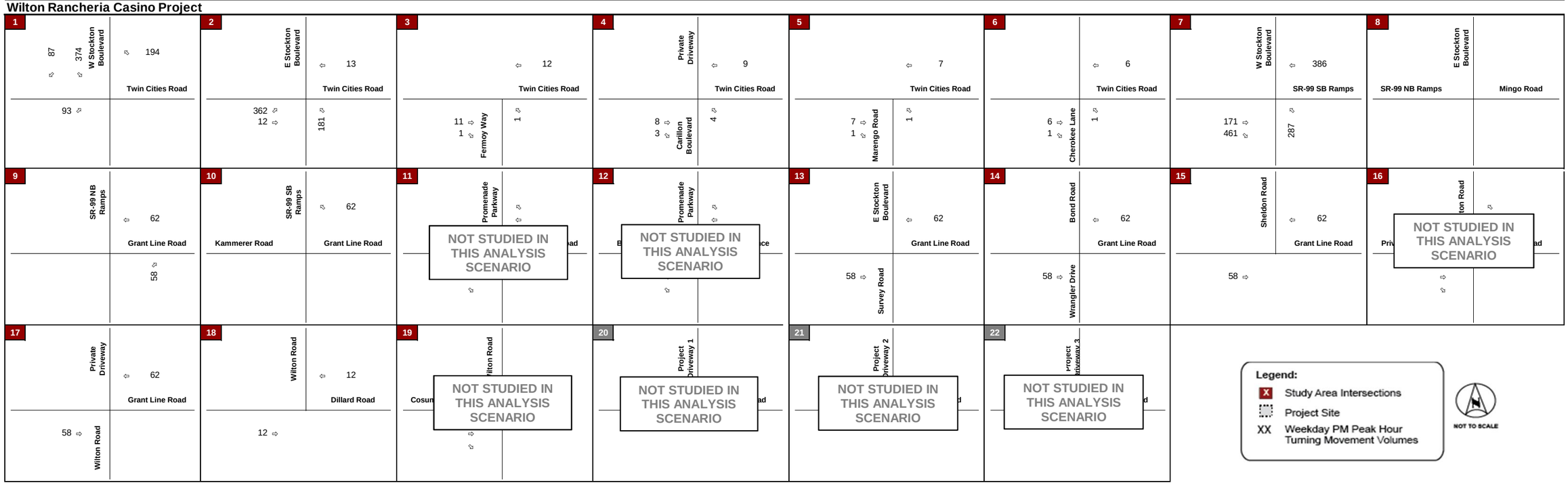
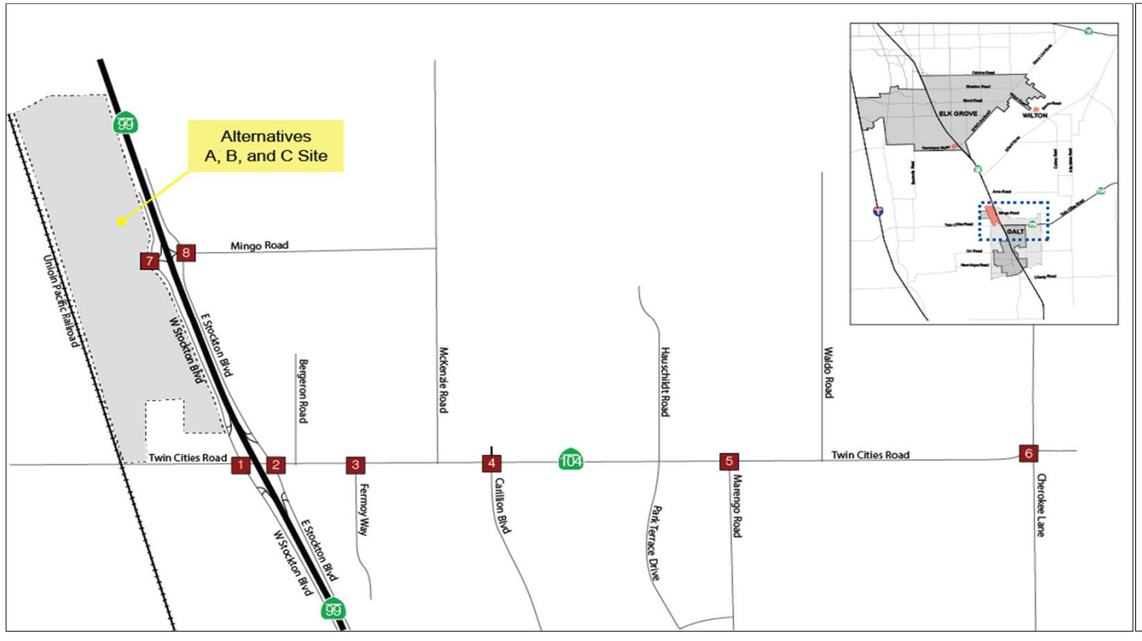
FIGURE 16

ALTERNATIVE A - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



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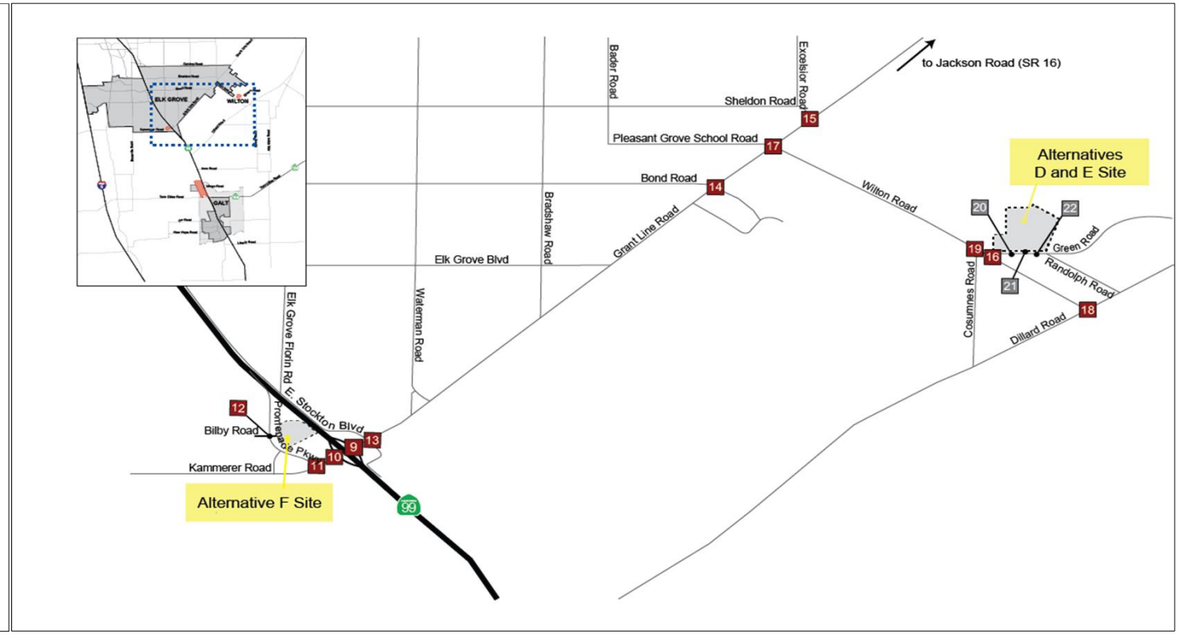
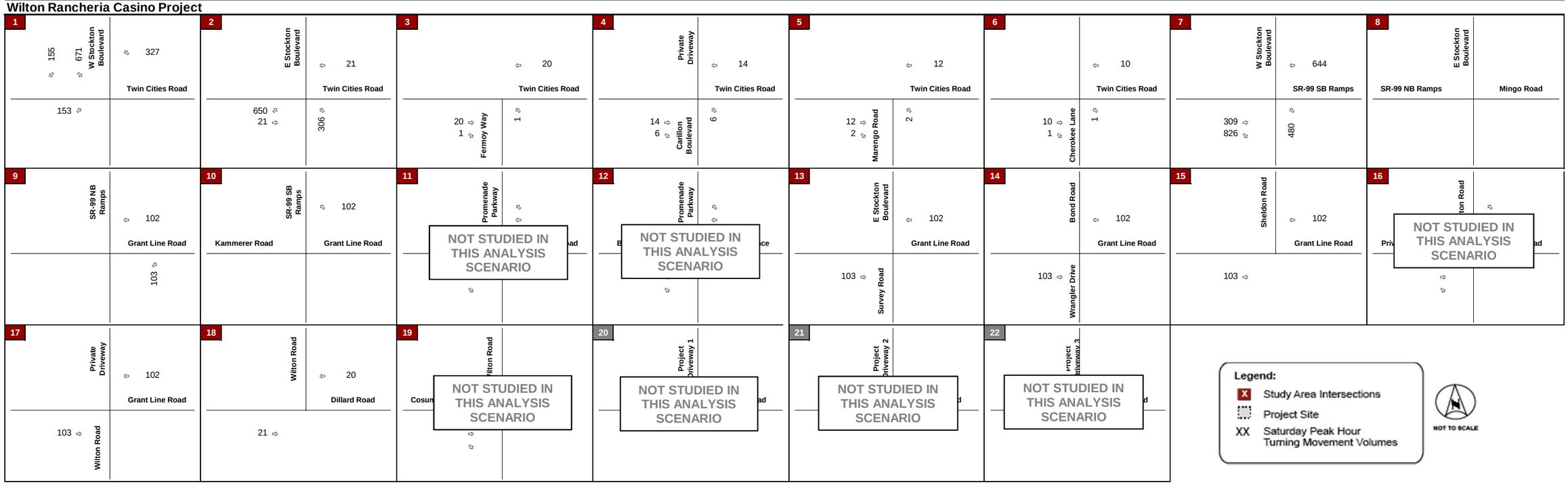


Wilton Rancheria Casino Project



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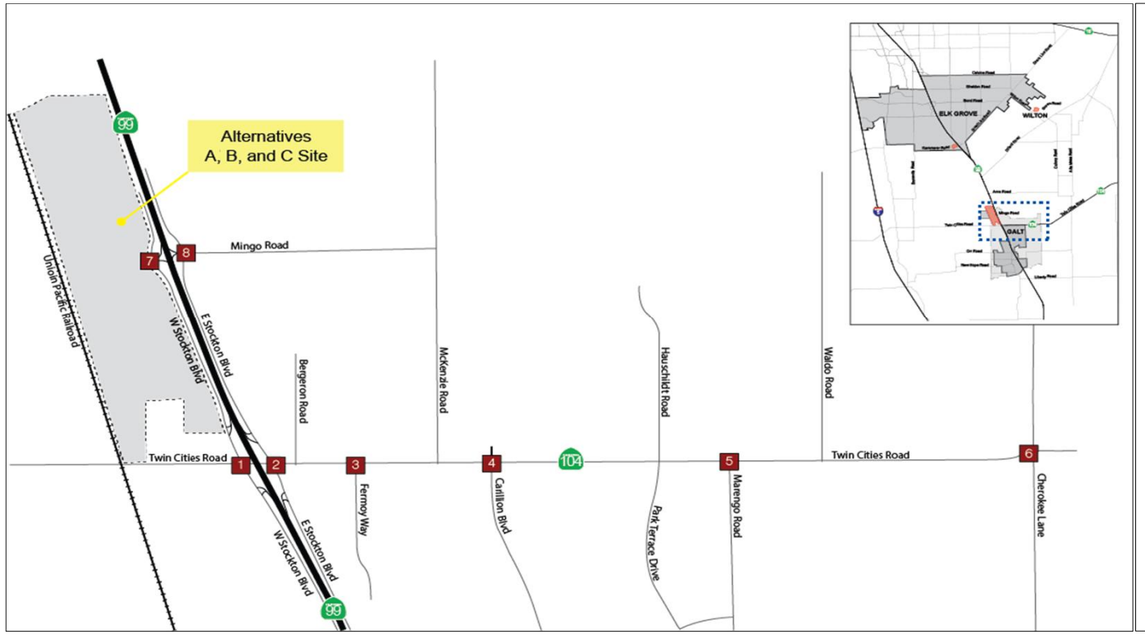

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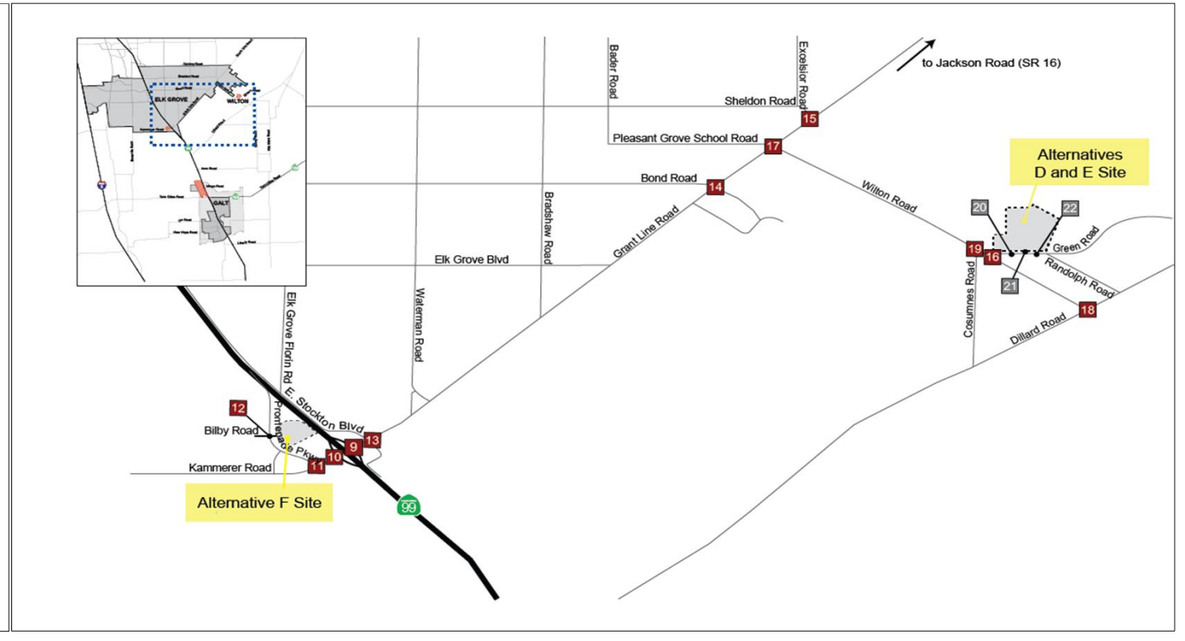

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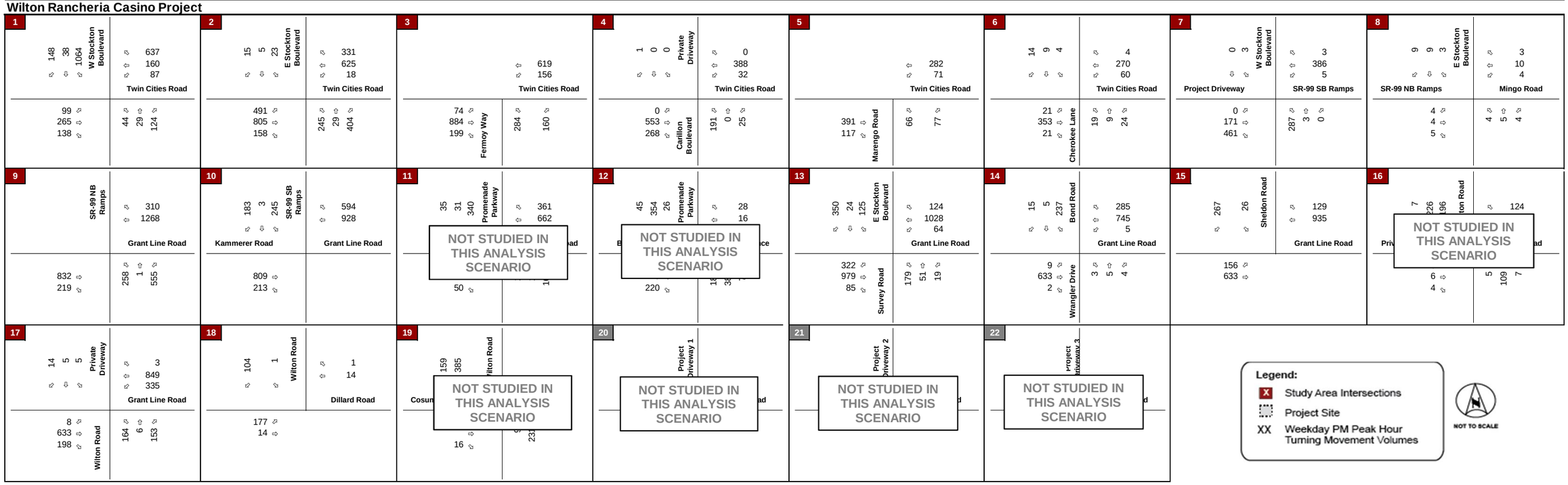
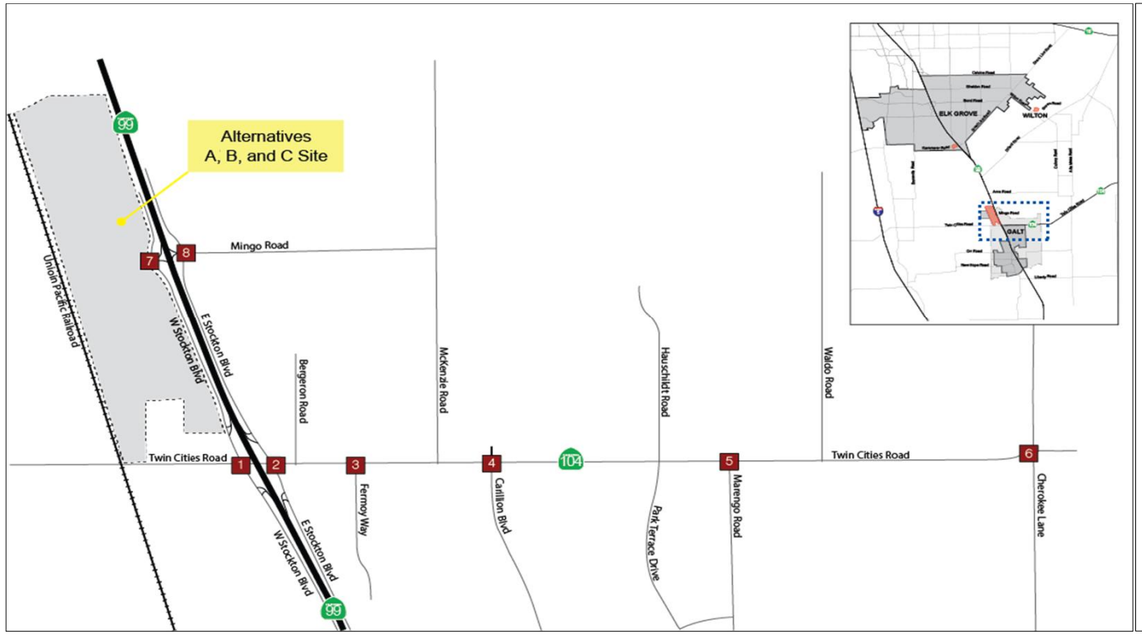
FIGURE 18

ALTERNATIVE A - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

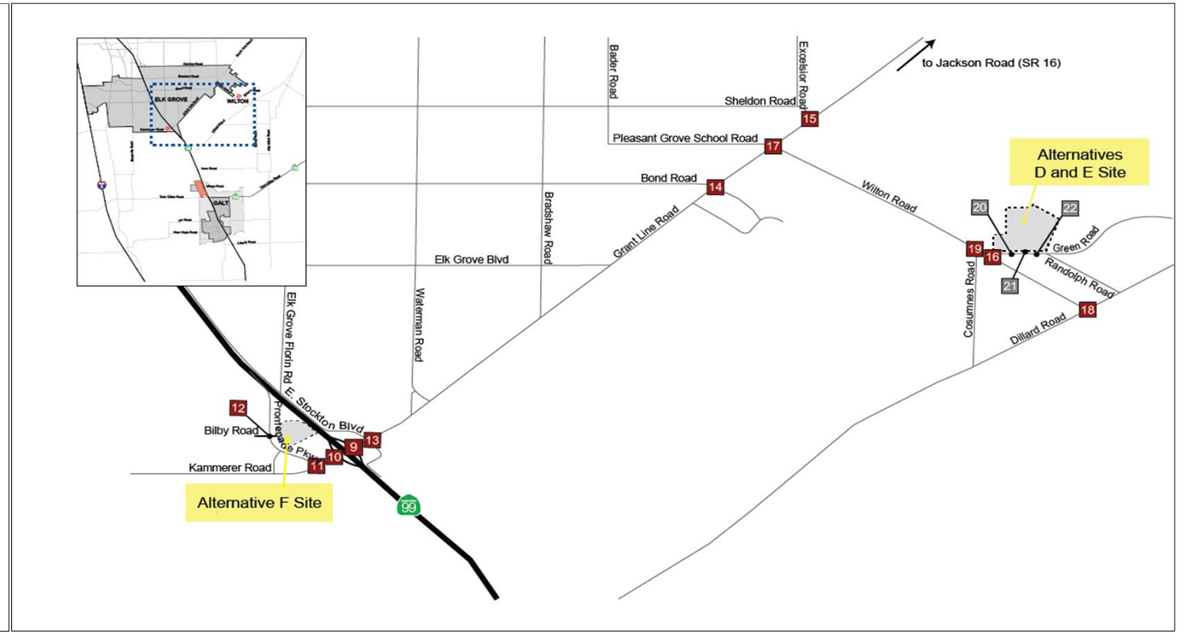
Wilton Rancheria Casino Project



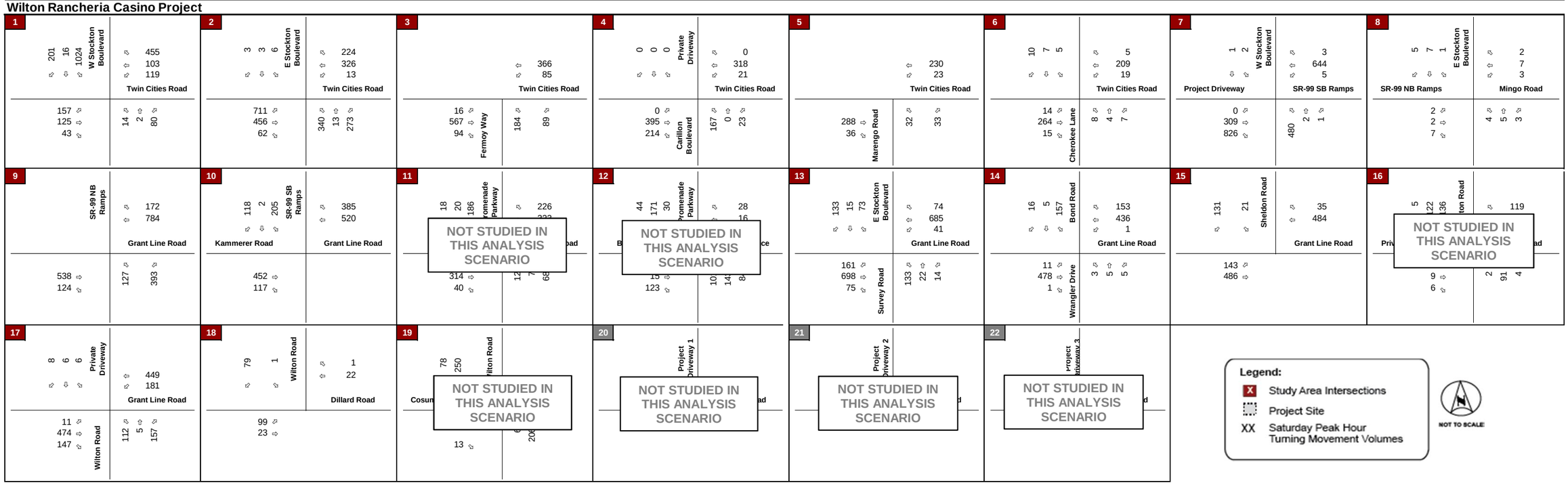
Vicinity Map (Intersections #1-8)



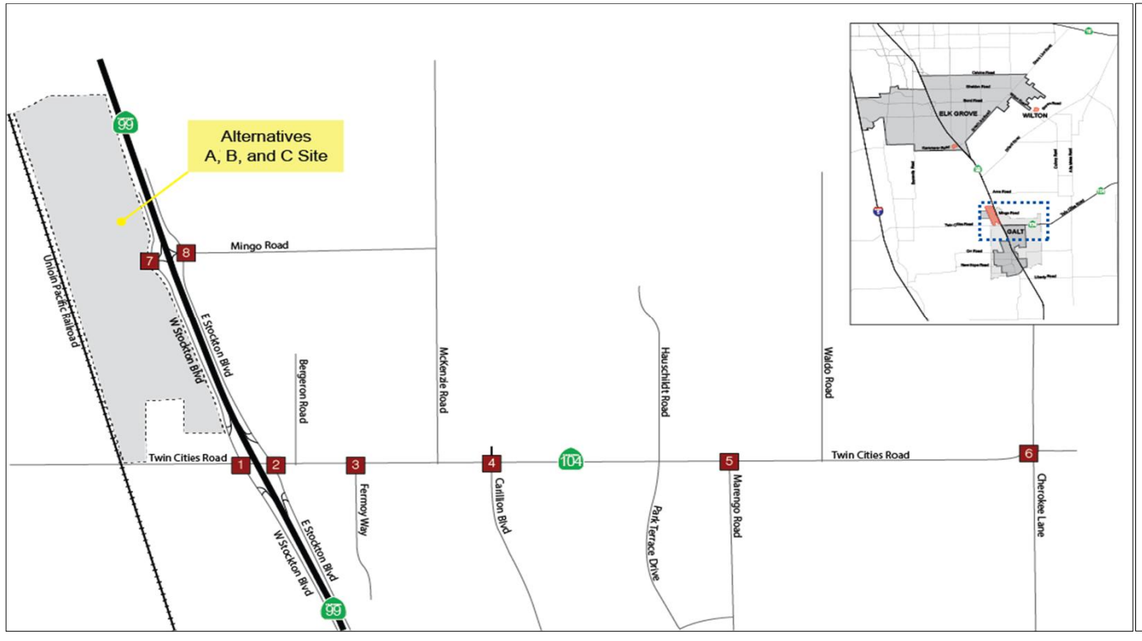
Vicinity Map (Intersections #9-22)



Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

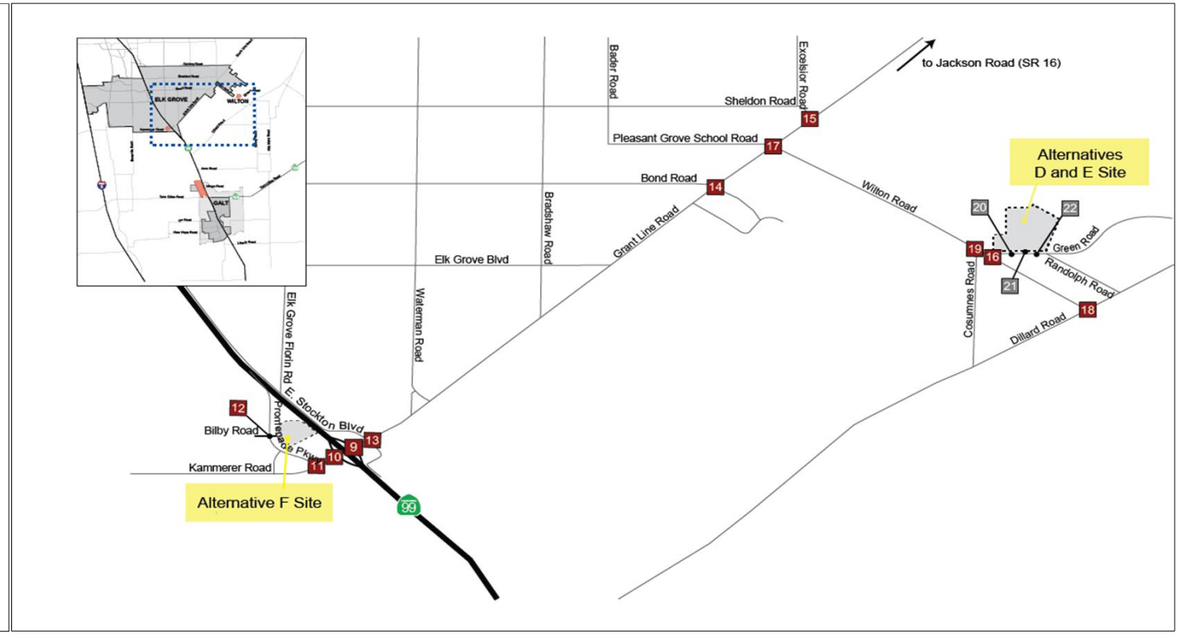


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FIGURE 20

NEAR-TERM PLUS PROJECT ALTERNATIVE A SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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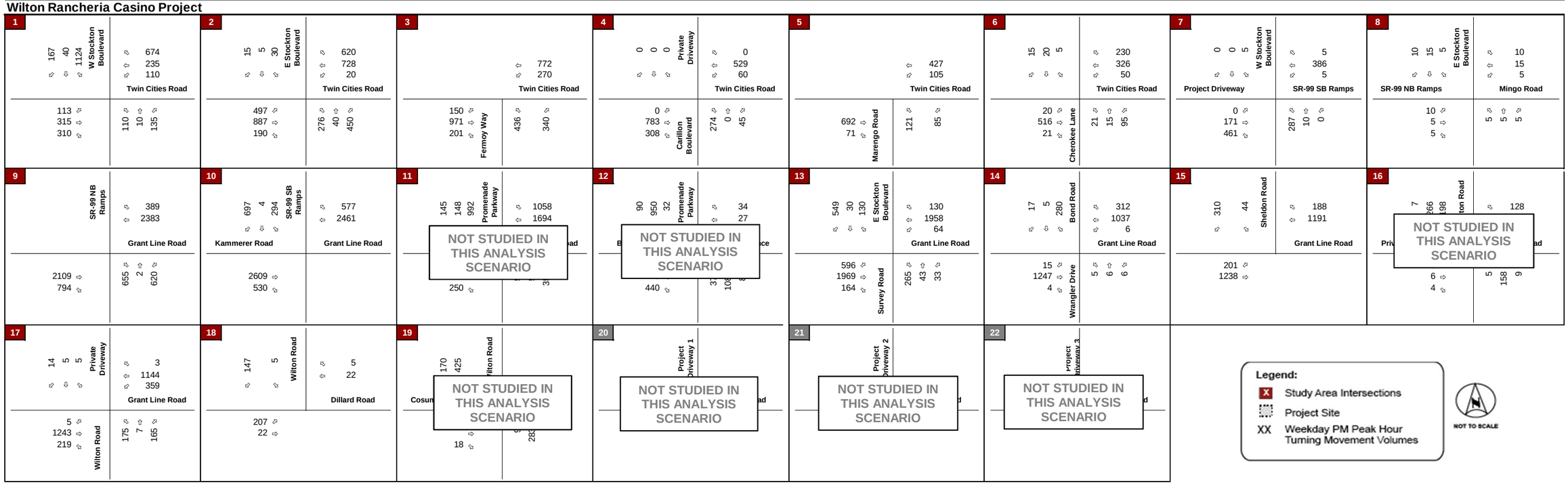
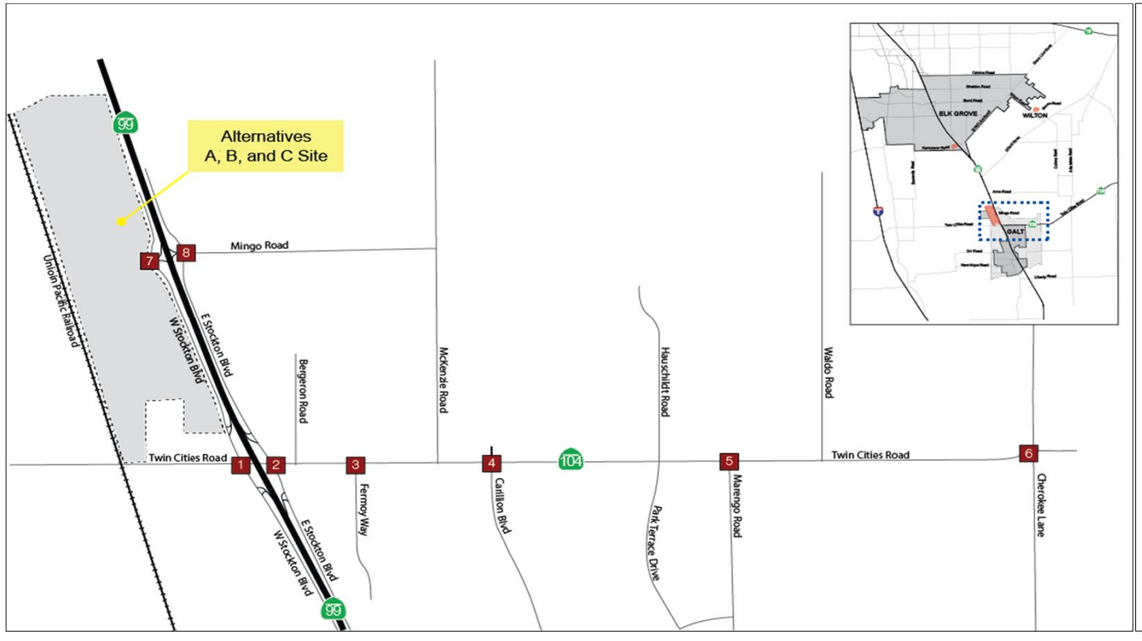
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

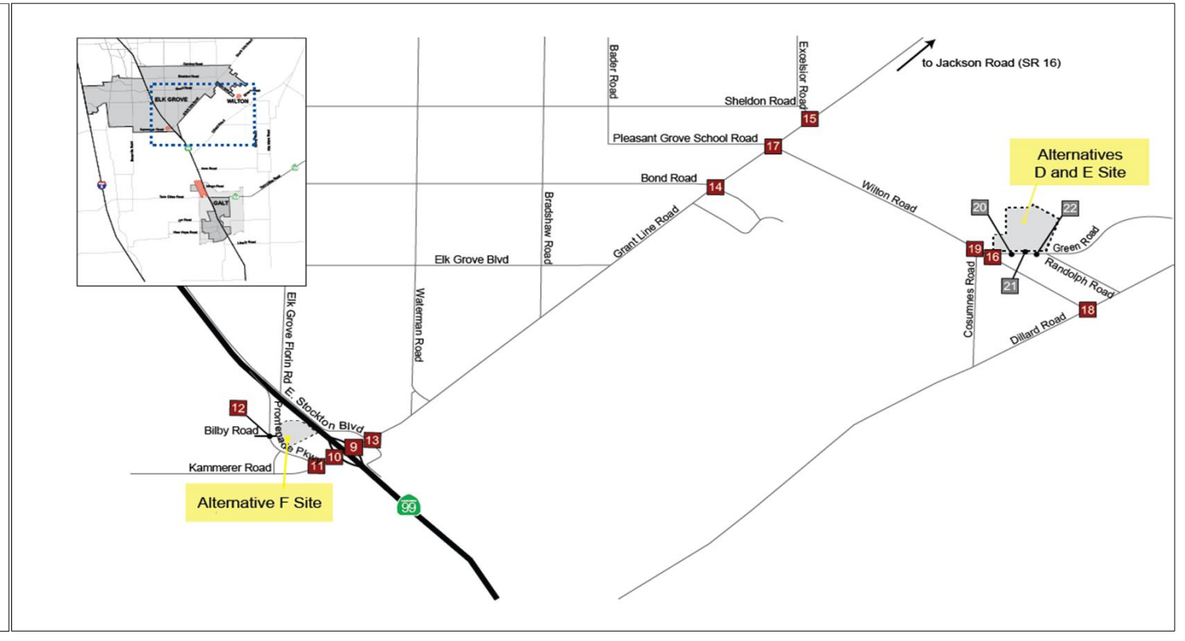


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FIGURE 21

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE A WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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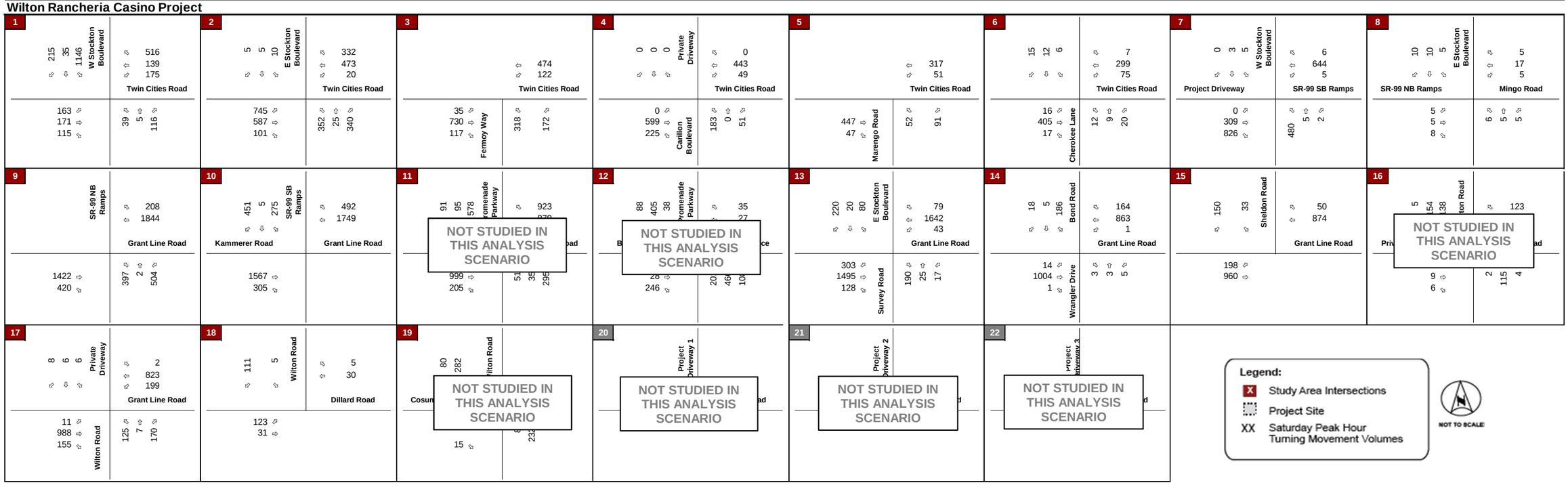
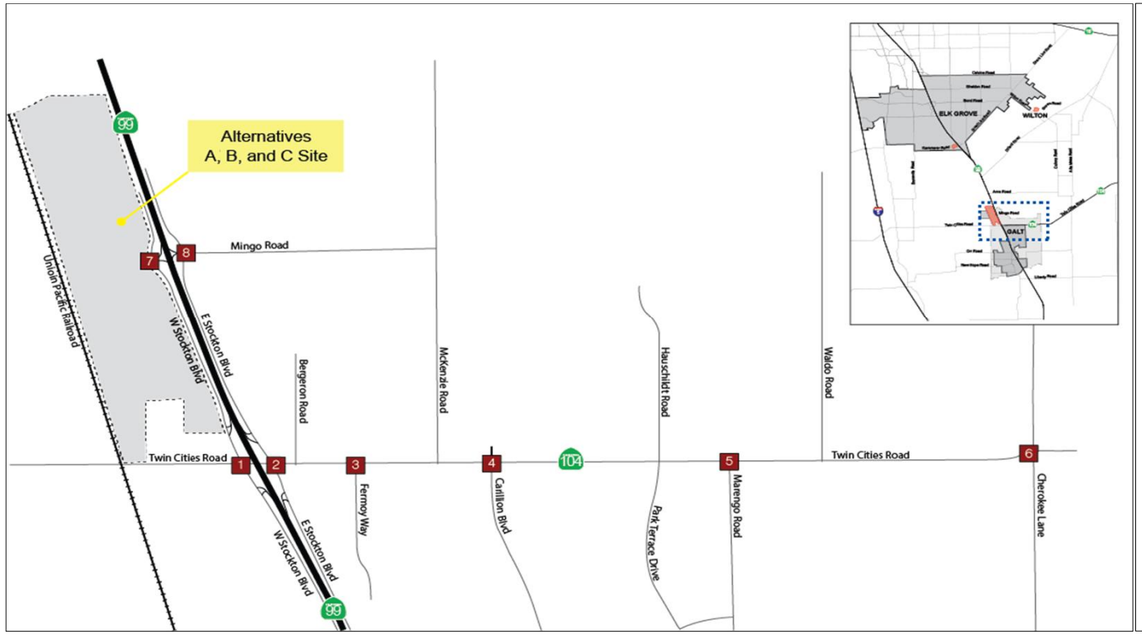
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

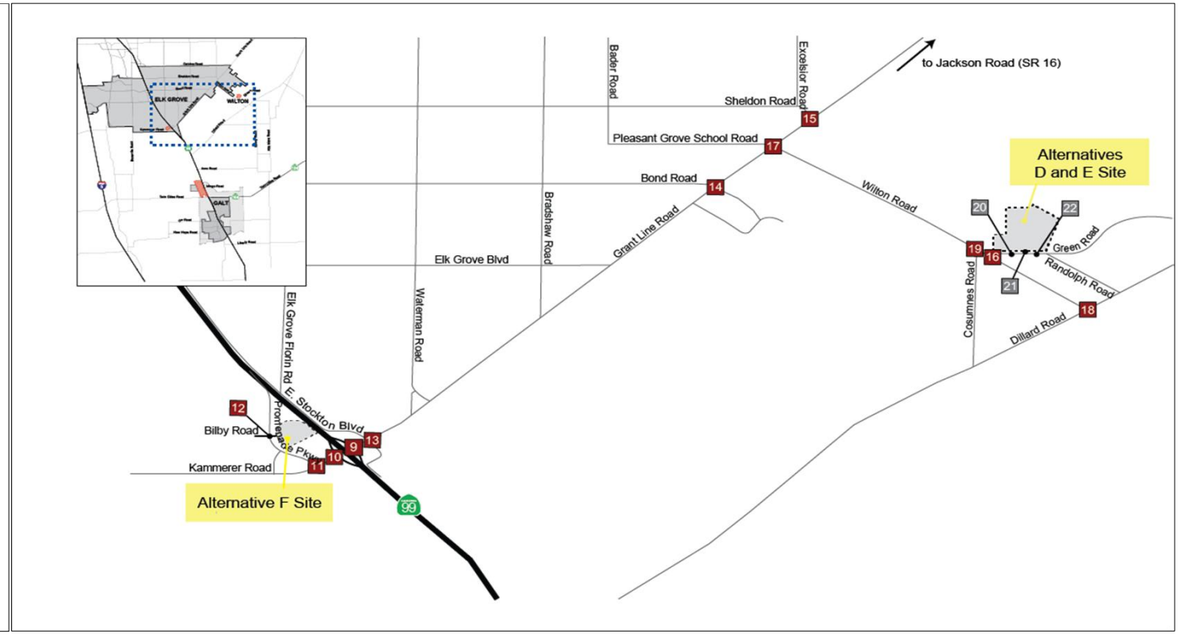


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FIGURE 22

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE A SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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Table 18 – Alternative A Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	27.7	A	7.6	**F**	**109.4**	**F**	**84.6**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	29.3	A	8.0	**F**	**113.7**	**F**	**69.4**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	B	16.7	B	11.5	B	16.7	B	11.5
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	12.2	A	9.6	B	12.4	A	9.8
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	B	13.5	A	9.7	B	13.9	A	9.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	C	16.9	B	12.6	C	17.4	B	12.9
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.7	A	8.6	C	27.6	**E**	**67.9**
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.2	A	9.1	A	9.2	A	9.1
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	10.9	A	7.0
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	A	6.2	A	6.4
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2	**E**	**56.6**	C	28.5
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	C	23.4	C	20.1
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	C	20.2	B	11.6
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	D	52.1	C	24.2
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	8.1	A	7.6
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**. Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

Table 19 – Alternative A Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**F**	**61.0**	B	12.7	**F**	**164.8**	**F**	**153.6**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**E**	**44.0**	B	11.6	**F**	**168.0**	**F**	**127.1**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	C	29.6	B	14.4	C	29.8	B	14.5
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	14.5	A	9.6	B	14.8	B	10.1
5	Twin Cities Rd/Marengo Rd	Signal	D	-	B	10.4	A	7.9	B	10.4	A	7.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	D	26.6	C	21.1	D	27.3	C	21.7
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.8	A	8.8	C	28.0	**E**	**68.9**
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.5	A	9.3	A	9.5	A	9.3
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	B	17.8	B	15.3
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	B	18.0	B	14.3
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**123.0**	D	46.4
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	C	24.2	B	19.1
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	14.9	B	11.4
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	D	45.2	C	22.3
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	A	9.2	A	7.9
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**. Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road
- West Stockton Boulevard/SR 99 SB Ramps (at Mingo Road)

Cumulative (2035) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road
- West Stockton Boulevard/SR 99 SB Ramps (at Mingo Road)
- Grant Line Road/East Stockton Boulevard

Because the current SR 99/Mingo Road interchange configuration does not facilitate access between the east and west sides of the freeway, project traffic traveling to/from northbound SR 99 must use the Twin Cities interchange and West Stockton Boulevard to access the project site. This adds a considerable amount of additional traffic to the Twin Cities roundabouts, which contributes to the congested conditions at these locations.

It should be noted that the intersection of Grant Line Road/East Stockton Boulevard is projected to operate at unacceptable LOS E without the project and will continue to operate at LOS E with the addition of the project for Near-Term conditions. However, the project does not increase the average control delay at the intersection by five (5) seconds or more; thus, no project-related impact is identified at this location for Near-Term conditions based on the established significance criteria.

5.8 Alternative A LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 20** summarizes the near-term (2018) roadway segment levels of service. **Table 21 Table 21** summarizes the cumulative (2035) roadway segment levels of service.

As shown in the near-term table, project traffic will add traffic to several roadway segments that are projected to operate at deficient levels of service without the project; however, the project does not cause an increase in the roadway segment V/C ratio of 0.05 or more; thus, no project impacts are identified.

As shown in the cumulative table, all study roadway segments operate at acceptable levels of service with the addition of project traffic.

Table 20 – Alternative A Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**23,407**	**F**	+0.012	13,517	C	
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	8,722	A		6,418	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	6,521	A		9,416	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	9,077	A		4,915	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,596	A		4,113	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	6,871	A		3,721	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	11,214	D		9,670	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	11,577	A		9,983	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	25,561	A		19,929	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	24,704	B		19,274	A	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**22,613**	**F**	+0.031	**17,674**	**E**	+0.044
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**18,754**	**F**	+0.031	14,843	D	
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**20,209**	**F**	+0.031	15,562	D	
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**19,134**	**F**	+0.031	14,755	D	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	4,963	C		3,953	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	9,965	D		8,321	D	
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	3,791	C		3,292	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	4,129	C		3,754	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,089	B		2,077	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 21 – Alternative A Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	25,277	C		14,581	A	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	11,157	A		7,803	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	6,528	A		9,427	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	30,240	A		16,374	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,460	B		12,162	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,659	A		10,103	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	33,258	B		28,678	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	35,164	B		30,322	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	47,789	D		37,308	B	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	43,288	D		33,865	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	32,315	A		25,471	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	26,701	C		21,346	A	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	27,674	C		21,552	A	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	22,028	B		17,311	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	5,663	C		4,490	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	9,882	D		8,252	D	
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	3,708	C		3,219	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	4,295	C		3,905	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,172	B		2,159	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

5.9 Alternative A LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project. As with the no project scenarios, freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 22** and **Table 23**, respectively.

Table 22 – Alternative A Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	31.5	6.4%	C	21.3	6.5%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	28.2	6.8%	C	21.4	7.0%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	31.7	15.7%	C	23.3	14.8%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	31.8	15.2%	C	23.4	15.3%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	32.2	15.8%	C	23.6	15.1%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	D	27.9	14.8%	C	24.8	14.3%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	24.7	12.8%	C	22.8	13.4%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.6	6.8%	C	21.2	7.6%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	28.7	5.5%	C	23.3	5.4%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	30.4	6.3%	C	22.7	6.1%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	D	33.4	6.7%	C	24.1	6.2%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	**E**	**37.0**	18.2%	D	26.4	15.8%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	30.5	16.4%	C	24.4	16.2%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	D	29.2	15.9%	C	24.9	15.3%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	D	28.3	15.5%	C	24.4	15.6%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	24.1	13.7%	C	22.8	14.0%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	25.4	8.1%	B	15.9	11.2%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 23 – Alternative A Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**35.7**	**E**	4%	28.1	D	5.2%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	29.9	D	4.5%	24.1	C	5.7%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	31.5	D	4.3%	25.2	C	5.4%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	30.2	D	0.0%	23.6	C	0.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	32.1	D	9.2%	25.7	C	11.7%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	**36.4**	**E**	11.3%	28.9	D	14.7%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**35.6**	**E**	3.5%	28.7	D	4.0%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	33.2	D	11.4%	26.0	C	15.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	34.9	D	10.1%	**39.9**	**E**	59.0%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	21.6	C	14.3%	20.0	B	15.6%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	B	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	25.9	C	14.1%	22.7	C	15.8%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 24** and **Table 25**, respectively.

Table 24 – Alternative A Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**E**	**42.0**	7.4%	**E**	**36.1**	7.1%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**E**	**42.1**	8.2%	**E**	**36.1**	7.4%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**54.8**	21.8%	**E**	**41.5**	17.9%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**55.1**	21.9%	**E**	**41.8**	18.1%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**56.4**	22.3%	**F**	**45.5**	19.1%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**44.6**	18.0%	**E**	**42.7**	17.6%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**43.1**	16.2%	**E**	**38.6**	15.2%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**38.9**	8.4%	**E**	**37.3**	8.1%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**53.7**	8.5%	**F**	**46.2**	7.7%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**56.2**	9.6%	**E**	**40.8**	7.4%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**58.9**	9.9%	**F**	**46.3**	8.2%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**68.8**	27.9%	**F**	**52.6**	22.6%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	32.2	17.1%	D	28.8	16.6%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	33.8	16.6%	D	29.9	15.9%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	D	28.6	15.3%	D	26.6	15.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	D	27.6	14.0%	D	26.6	14.2%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	29.0	7.8%	C	23.4	7.3%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 25 – Alternative A Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**46.1**	**F**	**7%**	**42.2**	**F**	**7.9%**
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**39.5**	**F**	**7.3%**	**37.2**	**E**	**9.7%**
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**42.1**	**F**	**7.1%**	**37.3**	**E**	**7.8%**
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**38.8**	**E**	**4.0%**	**35.8**	**E**	**4.4%**
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**41.3**	**F**	**10.7%**	**37.3**	**E**	**12.0%**
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**46.9**	**F**	**8.6%**	**43.0**	**F**	**9.4%**
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**45.1**	**F**	**2.7%**	**41.5**	**F**	**3.0%**
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**43.7**	**F**	**8.4%**	**38.8**	**E**	**9.3%**
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**44.3**	**F**	**7.5%**	**39.9**	**E**	**8.1%**
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	32.6	D	10.9%	28.7	D	2.1%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	D	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	25.8	C	13.7%	24.5	C	15.0%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent (5%) with the addition of the project. Significant congestion is expected with and without the project.

5.10 Alternative A Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections and roadways with levels of service below established thresholds were investigated to determine the role of the Alternative A traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following intersection and roadway improvements as shown on **Table 26** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 26 – Alternative A Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	• See mitigation for Intersection #1		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 26 – Alternative A Summary of Mitigations (cont.)
Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	• See mitigation for Intersection #1		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane. • Convert NB/SB signal phasing from split to protected left-turn phasing. • Implement traffic signal coordination to improve progression along Grant Line Rd with adjacent signalized intersections during weekday PM peak period.	No	• Capacity
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

The key component of the Alternative A mitigations is the proposed reconstruction of the Mingo Road/SR 99 interchange to provide full access between the project site and NB and SB SR 99. This improvement removes a substantial amount of project trips that would otherwise have to navigate south to the NB SR 99 ramps near Twin Cities, which would further exacerbate projected future congestion at the Twin Cities roundabouts. A preliminary design concept for the reconstructed Mingo Road interchange has been developed for the purposes of this study and is shown in **Figure 23**. The initial concept is described as follows:

Mingo Road Overcrossing

- New four-lane bridge constructed over SR-99, providing access between the project site and NB/SB SR-99.

- New bridge to include width for six-foot sidewalks and six-foot shoulders/bike lanes.
- Approximately 825-foot spacing will be provided between NB and SB SR-99 ramp terminals.

West Side of SR-99

- Spread diamond configuration with southbound ramps aligned at a signalized intersection approximately 400 feet west of the SR-99 mainline.
- New SB on-ramp will include one mixed-flow lane and one HOV bypass lane.
- Adequate space is provided to accommodate a potential future loop ramp (westbound Mingo Road to southbound SR-99) in the northwest corner of the interchange, if needed, but this feature is not proposed at this time.
- The Tribe has expressed strong desire to avoid the alignment of public roadways through what is proposed to become tribal property. For this reason, the proposed interchange improvements include the closure of West Stockton Boulevard between just north of the SR-99 SB hook ramps near Twin Cities Road and Mingo Road.
- West of the SR-99 SB ramps, Mingo Road will align to the north to provide access to the proposed project site.

East Side of SR-99

- Spread diamond configuration with a loop ramp in the southeast corner allowing access to northbound SR-99 from eastbound Mingo Road (via right-turn) and from westbound Mingo Road (via left-turn). The northbound SR-99 loop on-ramp and northbound off-ramp connect at a signalized intersection with Mingo Road.
- New NB loop on-ramp will include one mixed-flow lane and one HOV bypass lane.
- The south leg of East Stockton Boulevard is realigned a minimum of 400 feet east of the SB ramps intersection to connect with Mingo Road at a new SSSC intersection (East Stockton Boulevard northbound approach is stop-controlled). This spacing meets the Caltrans requirement for 400-foot minimum spacing between intersections.
- The north leg of East Stockton Boulevard is aligned to connect with Mingo Road as the north leg of the signalized intersection with the aforementioned SR-99 northbound ramps.

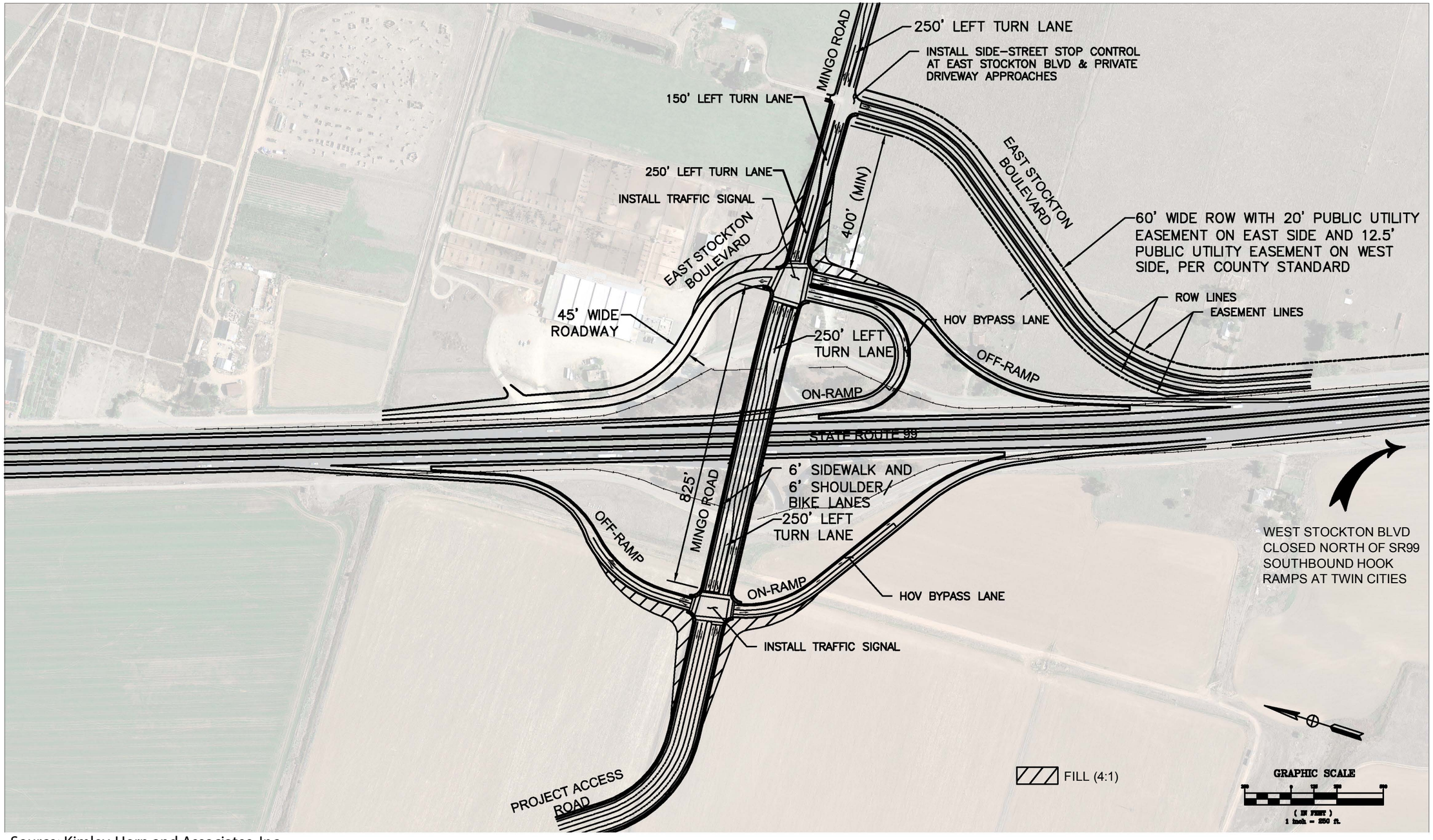
The proposed interchange concept shown in **Figure 23** represents a planning-level design drawing. Additional analysis, concept development and coordination with Caltrans and Sacramento County would be required in the next phases of the project development process. While the currently proposed design concept includes signalized intersections at the NB and SB SR-99 ramp terminals, future project development efforts may include consideration for roundabouts or other traffic control options as part of an Intersection Control Evaluation (ICE), as required per Caltrans policy.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities and Mingo interchanges, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 28% based on standard Caltrans methodology for calculating equitable mitigation measures.[16]

Table 27 and **Table 28** summarize the expected intersection levels of service with the proposed mitigation.

[16] Fair-share proportion represents the fair-share percentage calculated using the methodology presented in the California Department of Transportation (Caltrans) Guide for the Preparation of Traffic Impact Studies (2002).



Source: Kimley-Horn and Associates, Inc.

Table 27 – Alternative A Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	D	27.7	A	7.6	**F**	**109.4**	**F**	**84.6**	**E**	**38.5**	B	10.1
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	D	29.3	A	8.0	**F**	**113.7**	**F**	**69.4**	**E**	**39.0**	B	10.7
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	B	16.7	B	11.5	B	16.7	B	11.5	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	12.2	A	9.6	B	12.4	A	9.8	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	13.5	A	9.7	B	13.9	A	9.9	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	C	16.9	B	12.6	C	17.4	B	12.9	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.7	A	8.6	C	27.6	**E**	**67.9**	A	8.3	C	23.6
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.2	A	9.1	A	9.2	A	9.1	B	12.9	B	14.4
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	10.9	A	7.0	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	A	6.2	A	6.4	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**56.6**	C	28.5	**-**	**-**	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	C	23.4	C	20.1	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	C	20.2	B	11.6	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	D	52.1	C	24.2	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	8.1	A	7.6	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													B	10.1	B	10.9

Notes:

1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.

2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

Table 28 – Alternative A Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	**F**	**61.0**	B	12.7	**F**	**164.8**	**F**	**153.6**	**F**	**73.6**	C	20.0
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	E	44.0	B	11.6	**F**	**168.0**	**F**	**127.1**	**F**	**63.1**	C	19.2
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	C	29.6	B	14.4	C	29.8	B	14.5	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	14.5	A	9.6	B	14.8	B	10.1	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	10.4	A	7.9	B	10.4	A	7.9	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	D	26.6	C	21.1	D	27.3	C	21.7	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.8	A	8.8	C	28.0	**E**	**68.9**	A	8.3	C	23.6
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.5	A	9.3	A	9.5	A	9.3	B	12.9	B	14.4
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	B	17.8	B	15.3	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	B	18.0	B	14.3	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**123.0**	D	46.4	**F**	**86.1**	D	41.9
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	C	24.2	B	19.1	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	14.9	B	11.4	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	D	45.2	C	22.3	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	A	9.2	A	7.9	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													B	10.1	B	10.9

Notes:

1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.
2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

As shown in the tables, the Twin Cities Roundabouts at W. Stockton and E. Stockton Boulevard are still anticipated to operate at unacceptable levels of service with implementation of the recommended mitigation measures. With modifications to the SR-99/Mingo Road interchange, site ingress/egress is improved and project traffic is no longer required to divert to the Twin Cities interchange to access northbound SR- 99. While the average delay at these locations would be reduced by 70+ seconds at each of the intersections during the worst-case peak hour period with reconstruction of the Mingo Road interchange, these roundabouts would continue to experience large delays.

As mentioned previously, the City of Galt previously identified long-term plans for full reconstruction of the Twin Cities Road/SR 99 interchange, which would improve traffic operations at these two intersections. Initial concept plans for this project identified widening of the Twin Cities Road overcrossing, realignment of East Stockton Boulevard and West Stockton Boulevard farther east and west, respectively, addition or direct ramp terminals joining Twin Cities Road and elimination of the existing hook ramps. Improvements of this magnitude are anticipated to require significant costs and right-of-way acquisition. The City is not currently collecting any funds for this project; thus this project is unlikely to be constructed in the foreseeable future. For this reason, the resulting project impacts to the W. Stockton and E. Stockton roundabout intersections will remain significant.

The Grant Line Road/East Stockton Boulevard intersection would continue to operate at LOS F for 2035 PM peak hour conditions after mitigation, but the average control delay would be reduced to below conditions without the project.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Project Alternative A is anticipated to add up to 2,700 vehicle trips per day to East Stockton Boulevard between Mingo Road and Twin Cities Road, where existing daily traffic volumes are very low (under 200 vehicles per day). Per County staff, the existing pavement condition index (PCI) for this roadway segment is 20, which represents very poor/deteriorated condition. For the portion of East Stockton Boulevard where roadway realignment is proposed, the project should reconstruct the roadway to provide a 60-foot right-of-way with a 12.5-foot public utility easement on the west side and a 20-foot public utility public facilities easement on the east side of the roadway. South of the portion of the roadway where realignment is proposed to Twin Cities Road, the project should be responsible for reconstructing East Stockton Boulevard to the County's Improvement Standards, where feasible within existing public right-of-way. Other than Mingo Road, which will be improved to meet County standards between the project access driveway and East Stockton Boulevard as part of the proposed interchange improvements, proposed project is anticipated to add very few new trips to other rural County roadways in the area.

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are no existing or planned sidewalks, trails or designated bicycle facilities within the vicinity of the proposed project site; thus the project would not inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site and the proposed modifications to the Mingo Road Interchange include considerations for pedestrian and bicycle facilities.

Because no fixed route transit service will be available at the project site, the casino and hotel should provide a shuttle that provides service to locations with connections to existing transit services in the City of Galt and Elk Grove. The shuttle could run throughout the day or could be called out on demand.

5.11 Alternative A VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative A is summarized in **Table 29**.

Table 29 – Alternative A VMT

Alternative A - Proposed Twin Cities Casino Resort							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	42%	30.8	11,083	341,356	15,993	492,584
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	44%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	15%					

5.12 Alternative A Construction Traffic Impacts

Impacts resulting from the construction of Alternative A would be temporary in nature. Construction activity impacts would be concentrated on W. Stockton Boulevard in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.
- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays.

6. ALTERNATIVE B – REDUCED INTENSITY TWIN CITIES CASINO

Alternative B represents the evaluation of traffic conditions with the construction of the proposed reduced-intensity casino project at the Twin Cities site. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

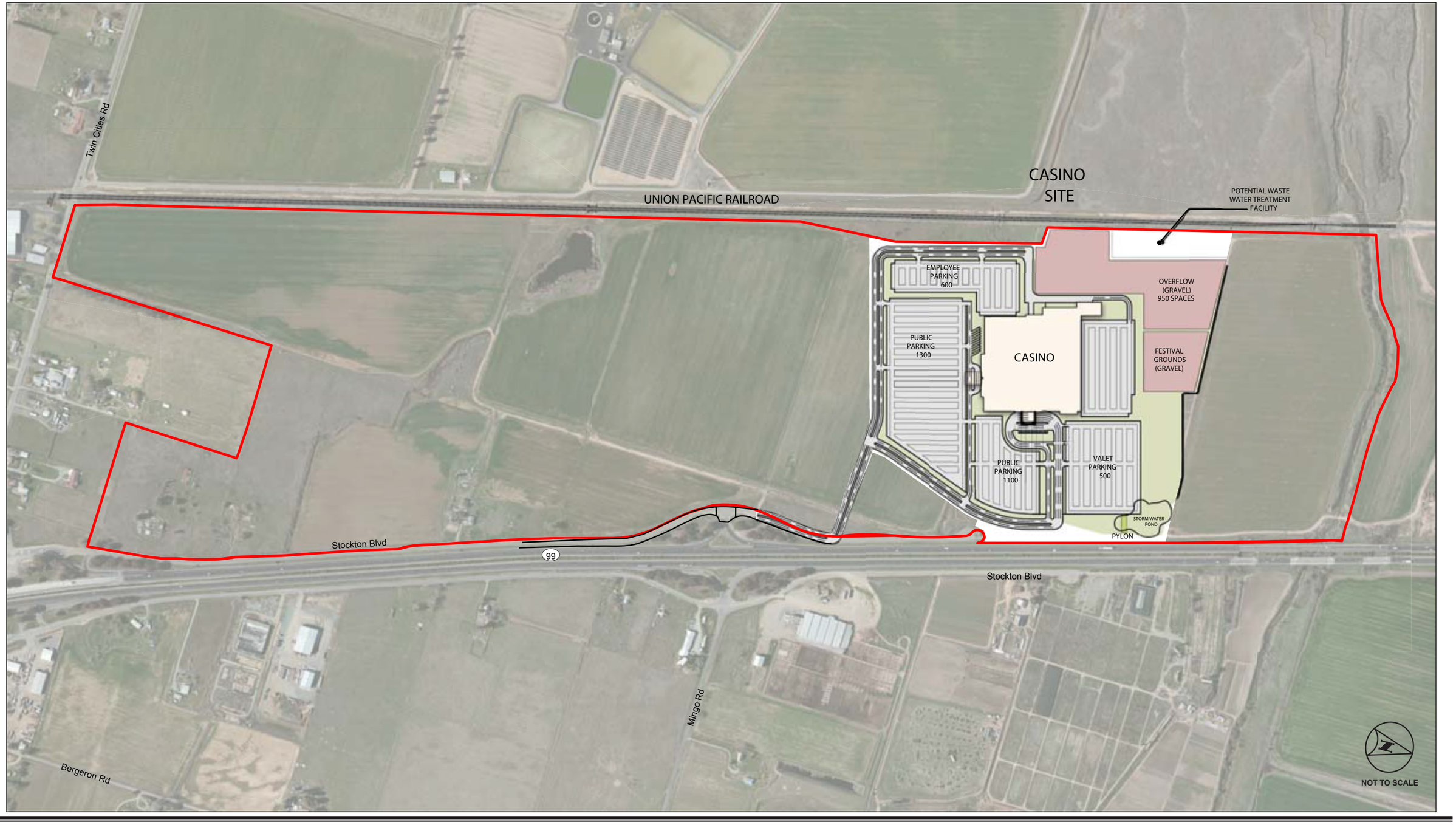
6.1 Proposed Site Uses

The Alternative B reduced-intensity casino is to be located at the Twin Cities site, as shown in **Figure 1**, just west of SR 99 and north of Twin Cities Road near Mingo Road. This location is just north of the Galt City Limit, but within the City's Sphere of Influence.

Figure 24 shows the proposed layout of the casino facility. As seen in the figure, the buildings and other related facilities are located in the northern portion of the parcel, which currently includes predominantly agricultural uses.

The project site includes a main casino building area of approximately 293,000 square feet, which includes casino gaming area, restaurants, food court, lobby, back of house and other ancillary functions. This project alternative includes no hotel facilities. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Casino Building Area – 293,000 s.f.
- Gaming Floor Area – 110,260 s.f.
- Gaming Positions – 2,004 positions



Kimley»Horn

Figure 24
Alternative B Site Plan

6.2 Site Access

The main project access is from West Stockton Boulevard with a new intersection leg to be constructed at the west side of the existing West Stockton Boulevard/SR 99 SB Ramps unsignalized intersection near Mingo Road (Intersection #7). The project is assumed to construct the new western leg of this intersection two approach lanes and two receiving lanes and the intersection is assumed to be signalized in conjunction with the project. It should be noted that full access to SB SR 99 is conveniently provided from the project driveway intersection at West Stockton Boulevard; however access to/from NB SR 99 is limited, as the Mingo Road interchange does not include an existing bridge connecting the project site to the east side of SR 99. For this reason, project traffic traveling to/from SR 99 must navigate to and from the site via the SR 99 NB ramps near Twin Cities Road.

6.3 Project Trip Generation

Project trip generation for Alternative B was calculated using the assumptions and methodologies described in the Alternative A section and is shown in **Table 30**. Additional trip generation calculations are contained in the **Appendix**.

As seen in the table, the project is expected to generate 8,137 new weekday trips, 13,044 new Saturday trips, 977 new trips in the weekday PM peak hour and 1,826 new trips in the Saturday PM peak hour.

Table 30 – Alternative B Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Casino	N/A	110,260	SF Gaming Floor Area	9,041	510	575	1,085	14,493	954	1,075	2,029
Diverted Link Trips (10%) [4]				(904)	(54)	(54)	(108)	(1,449)	(102)	(101)	(203)
Net New Vehicle Trips				**8,137**	**456**	**521**	**977**	**13,044**	**852**	**974**	**1,826**

SF -Square Feet; GFA - Gaming Floor Area

Casino[2]

Weekday Daily	T = 82.00 x (1000's of SF GFA)	50% In	50% Out
Saturday Daily	T = 131.44 x (1000's of SF GFA)	50% In	50% Out
Weekday PM Peak Hour	T = 9.84 x (1000's of SF GFA)	47% In	53% Out
Saturday Peak Hour	T = 18.40 x (1000's of SF GFA)	47% In	53% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Peak hour casino trip generation rates based on surveyed existing trip generation for existing Thunder Valley Casino. Reference: *Draft Existing Conditions Traffic Study - Thunder Valley Casino Expansion Project (Kimley-Horn and Associates, Inc., 2005).* Daily trip generation rates for casino uses were not presented in the Thunder Valley Casino Study; thus, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio documented in published traffic studies for other comprable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used for simililar projects in other tribal casino studies and with the daily customer and employee totals projected for the proposed project.

(3) The proposed casino facility includes other auxiliary/internal uses in addition to gaming area, such as restaurants, back of house, lounges, etc. However, only the casino gaming floor area (GFA) is used as the independent variable for the purposes of estimating trip generation. This is because the trip generation rates use GFA as the independent variable, and were developed based on empirical data from similar existing casino facilities, and include the trips associated with all of the casino uses (gaming areas, restaurants, lounges, back of house, etc.), excluding convention space.

(4) The project site is located adjacent to State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 10%. This adjustment is likely conservative and is within the range identified by Caltrans' guidance for pass-by/diverted link trip reductions for retail-oriented development (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002). Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the casino trip generation estimates.

6.4 Project Trip Distribution and Assignment

The trip distribution for Alternative B was developed using the methodologies discussed previously for Alternative A. For Alternative B, much of the casino project trips are expected to travel to/from SR 99 with origins/destinations in Elk Grove and Sacramento to the north, and Lodi and Stockton to the south. Based on the likely customer and employee base for the site and orientation of the regional roadway network, it was estimated that approximately 58% of the project traffic would be distributed to destinations north of the site – the vast majority of these trips using SR-99 and a smaller proportion using Grant Line Road and Dillard Road to/from communities in eastern Sacramento County and El Dorado County. Approximately 15% of the project trips would be distributed to destinations west of the site via Twin Cities Road to account for connecting traffic from I-5 and communities in the San Francisco Bay Area. Approximately 1% of the project trips would be distributed to areas east of Galt via Twin Cities Road and approximately 3% of project trips would be distributed within the City of Galt. Approximately 23% of the project traffic distributed to destinations south of the site via SR-99. **Figure 14** illustrates project traffic assigned to the study area based on the assumed trip distribution for Twin Cities Casino project alternatives (Alternative A and B).

Figure 25 and **Figure 26** show the Alternative B project traffic assignment for near-term weekday and Saturday PM peak hour conditions. **Figure 27** and **Figure 28** show the Alternative B project traffic assignment for long-term cumulative (2035) weekday and Saturday PM peak hour conditions.

6.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative B project. **Figure 29** and **Figure 30** illustrate the combined near-term turning movement volumes at the study intersections.

6.6 Long-Term Plus Project Traffic Volumes

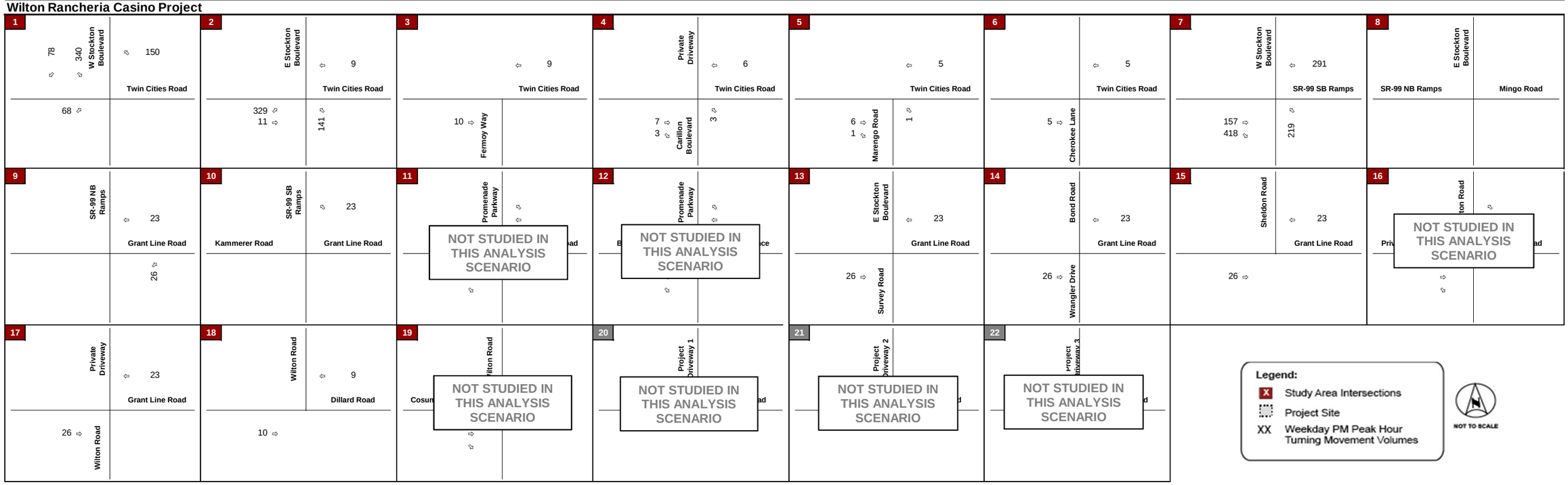
Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative B project. **Figure 31** and **Figure 32** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

6.7 Alternative B LOS Conditions and Impacts at Intersections

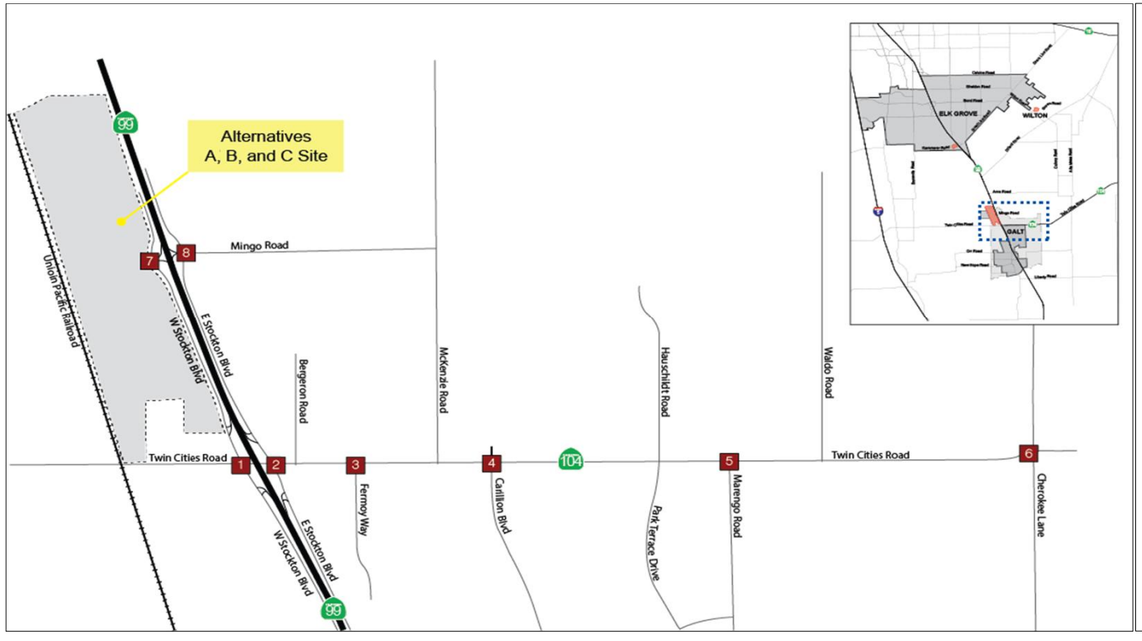
Traffic operations were evaluated for near-term conditions (2018) and long-term cumulative conditions with Alternative B (year 2035).

Results of the analysis are presented in Table 31 and **Table 32**, respectively. Additional detail is provided in the **Appendix**.

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

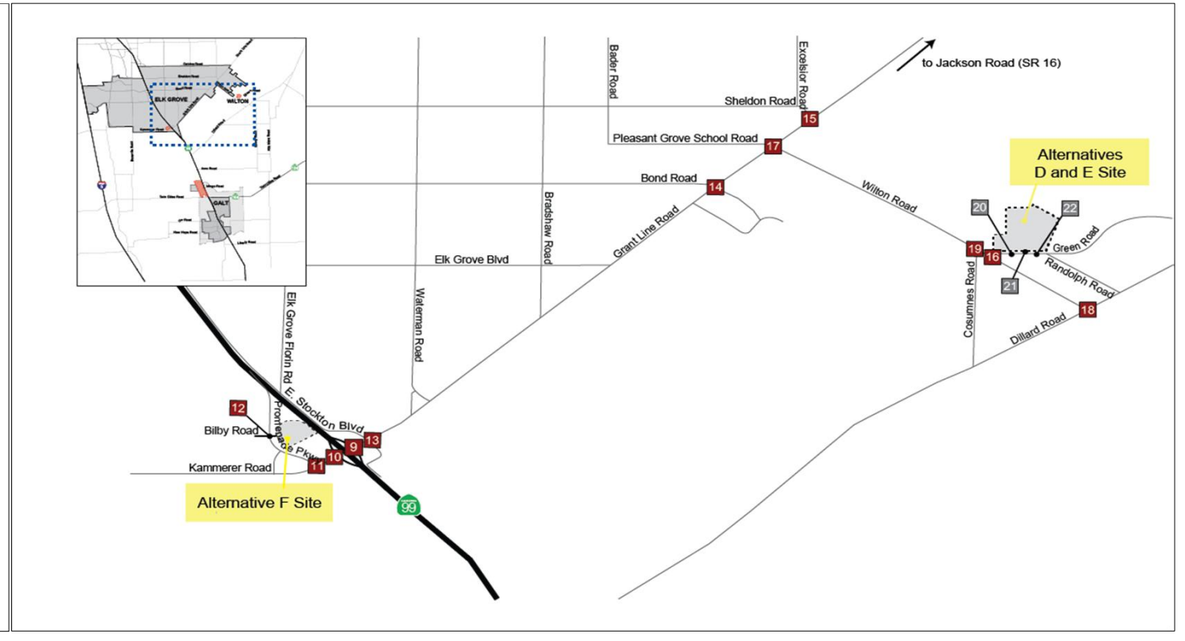


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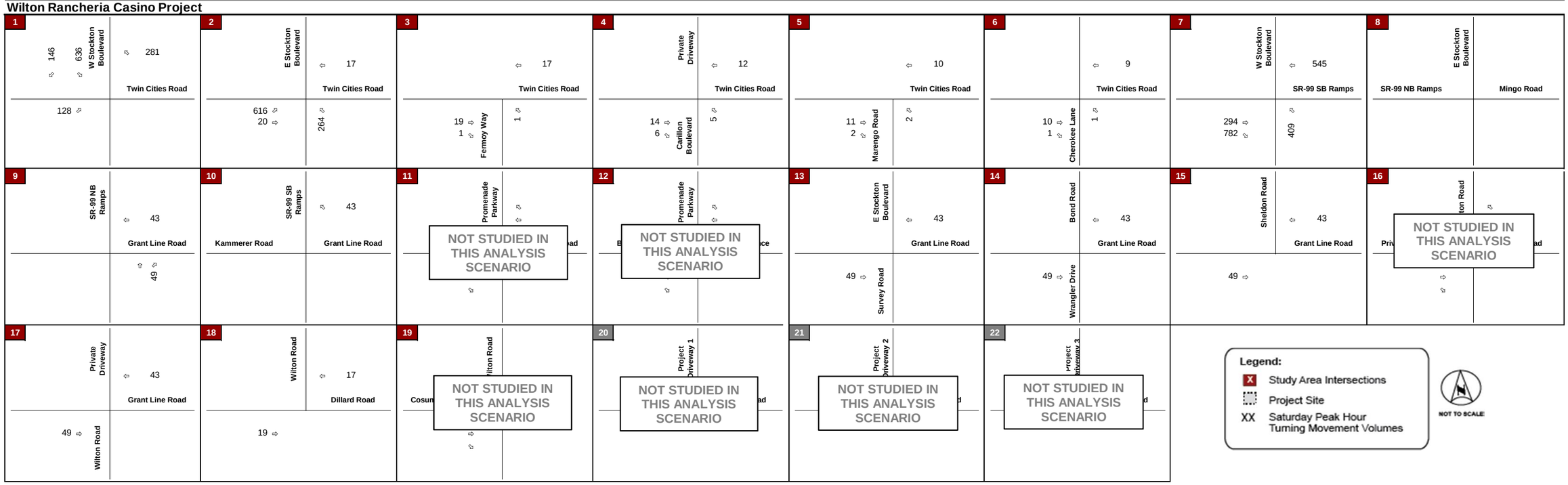
FIGURE 25

ALTERNATIVE B - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]B-NT-PM Figure

Wilton Rancheria Casino Project



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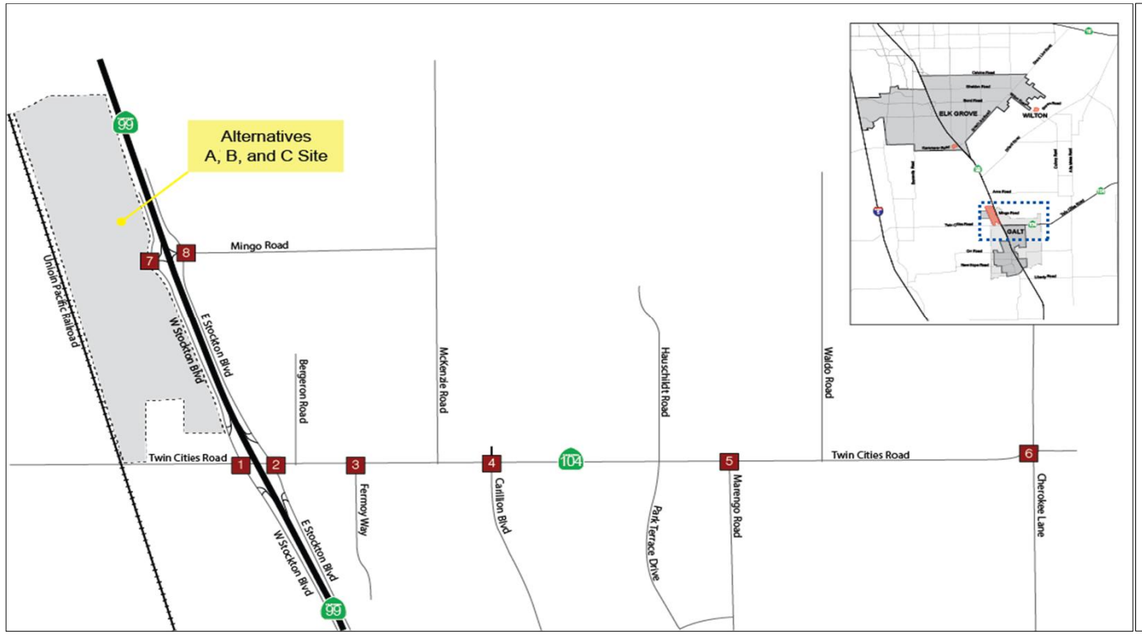

Vicinity Map (Intersections #9-22)

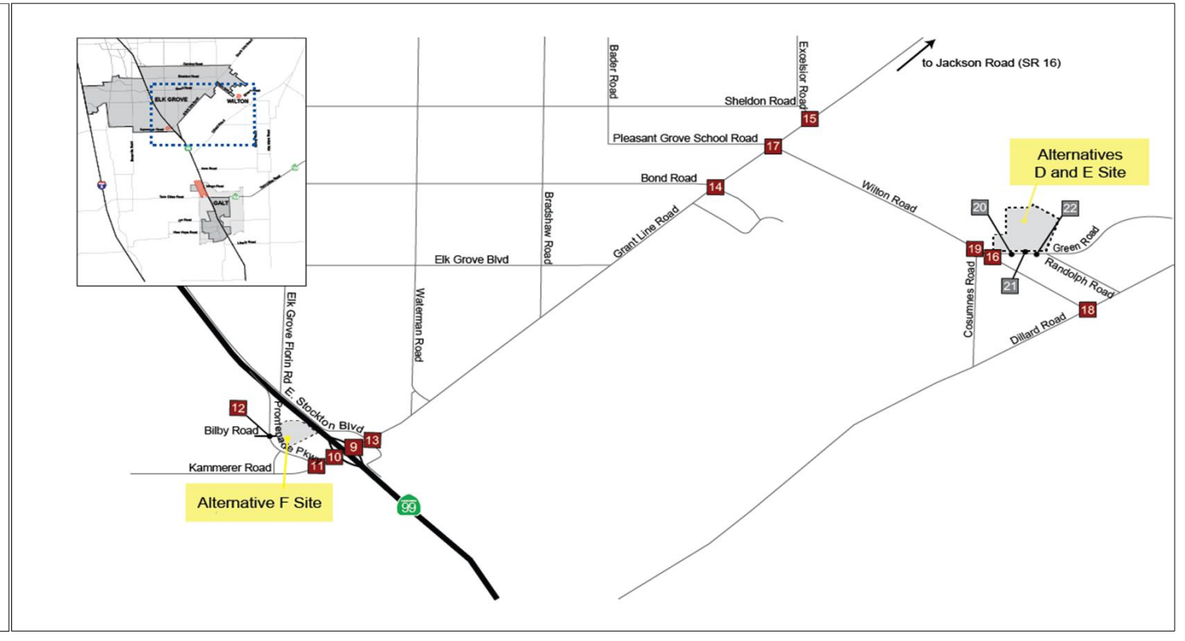

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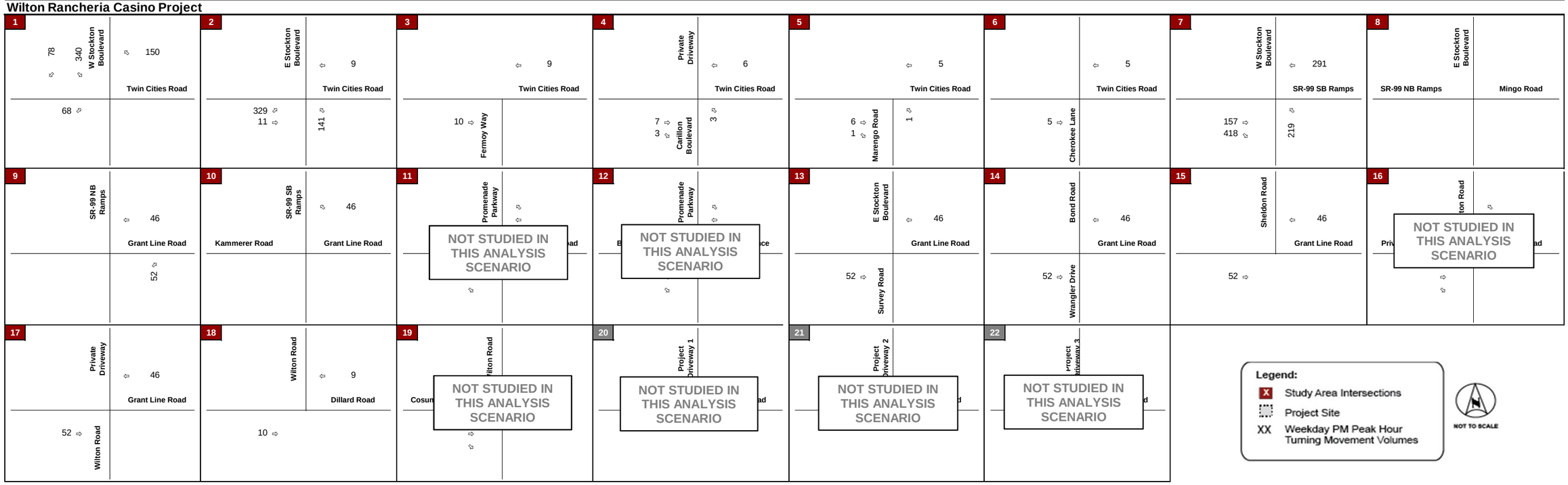
FIGURE 26

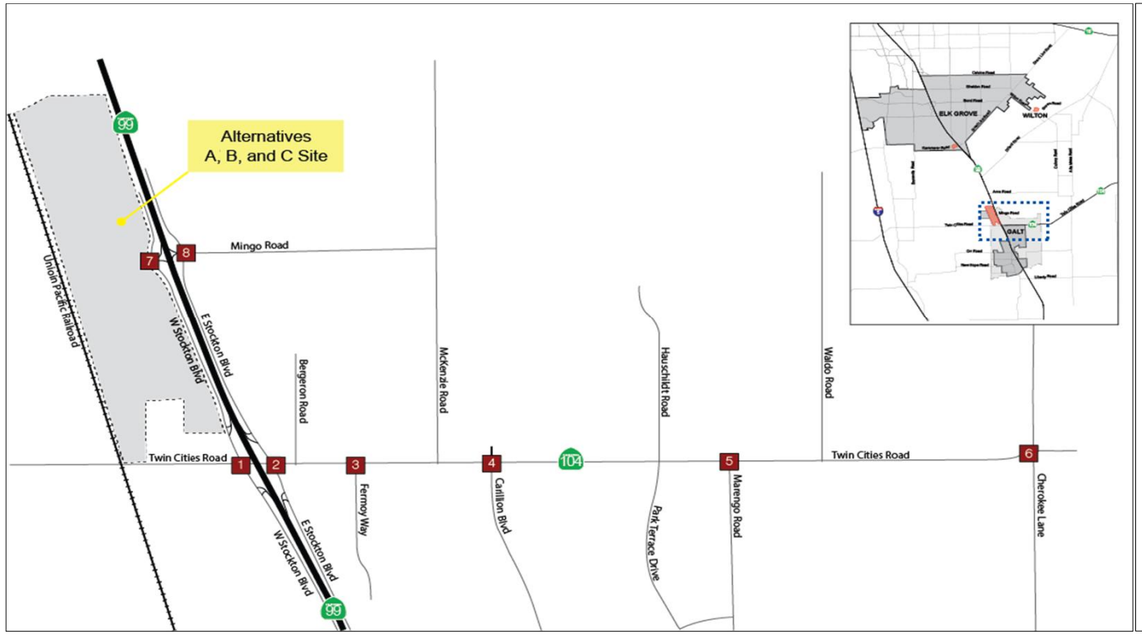
ALTERNATIVE B - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]B-NT-SAT Figure

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



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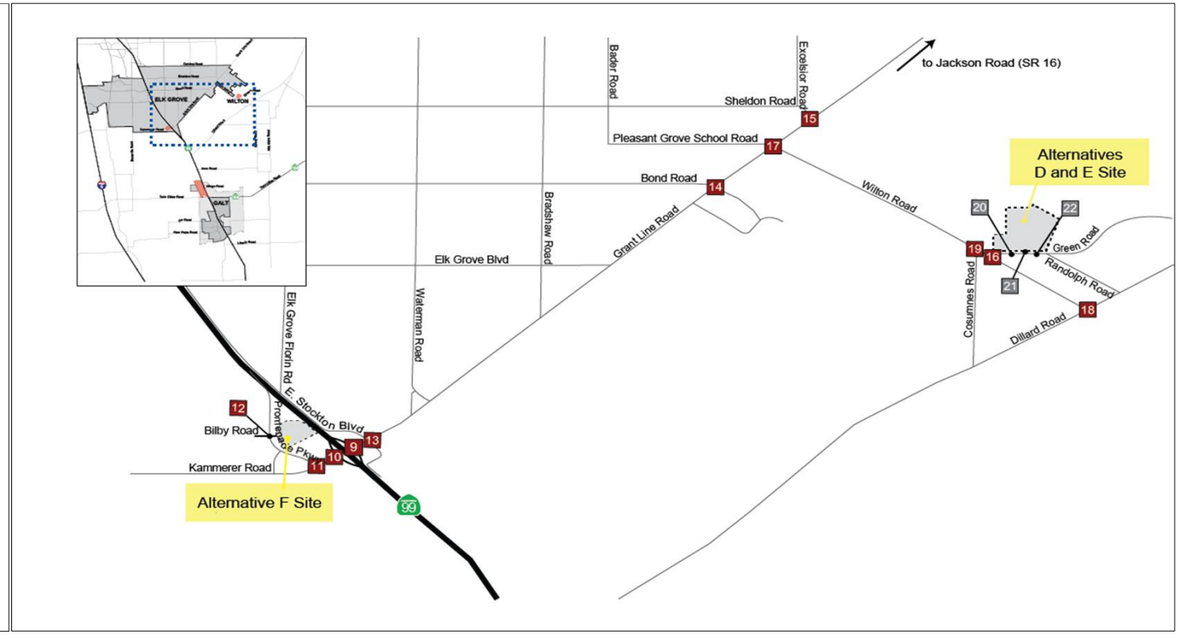

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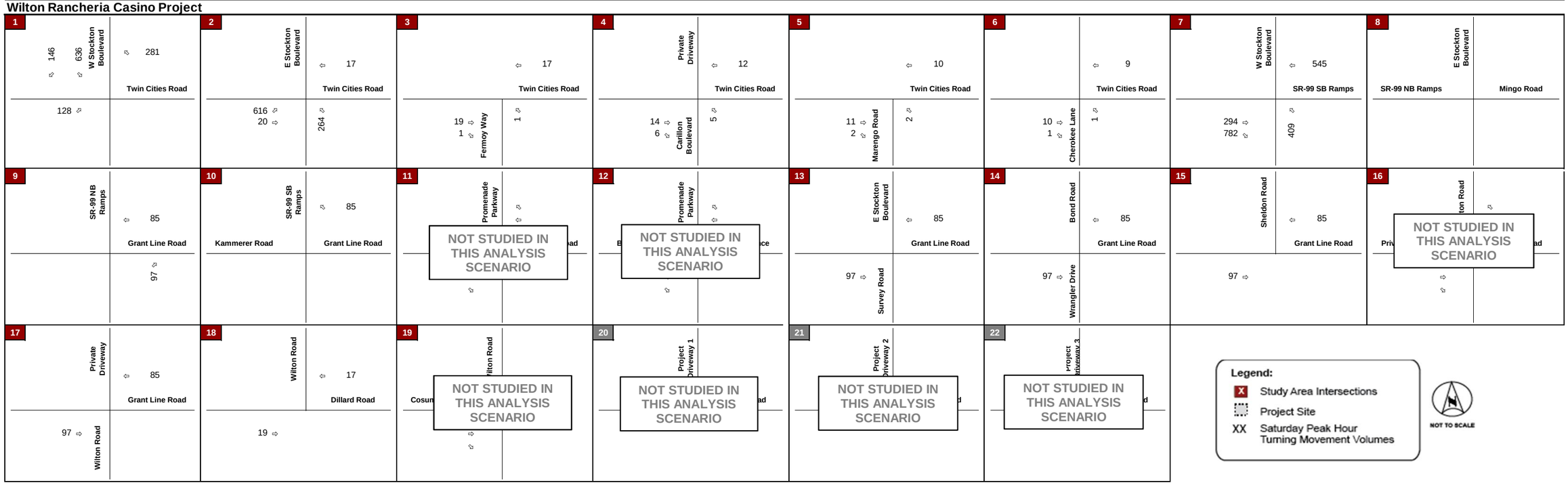
FIGURE 27

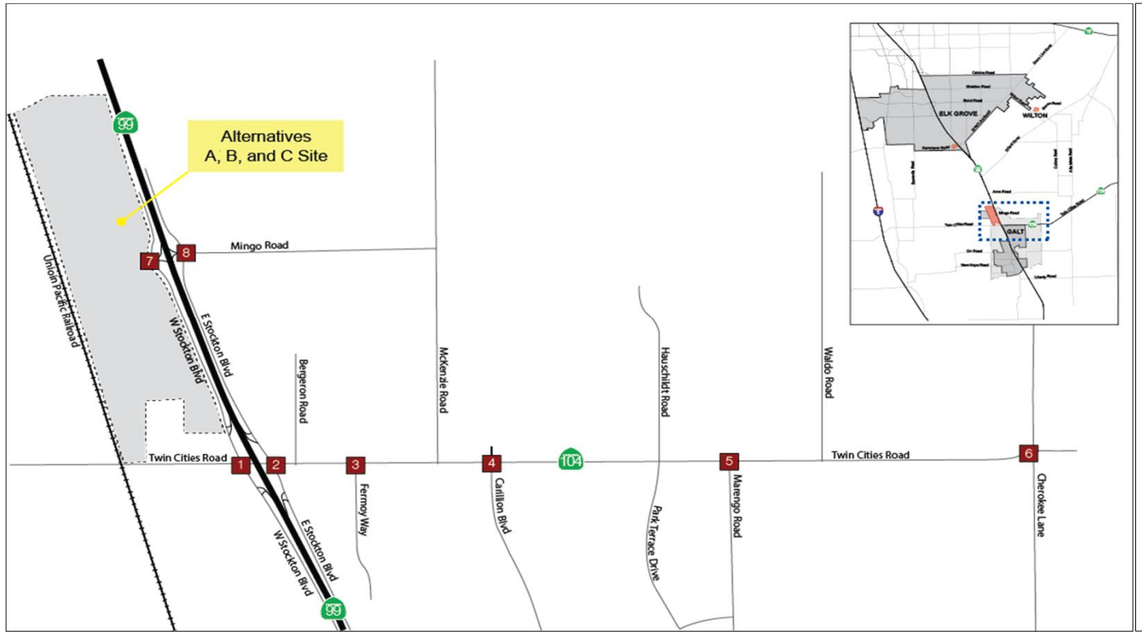
ALTERNATIVE B - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]B-HY-PM Figure

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

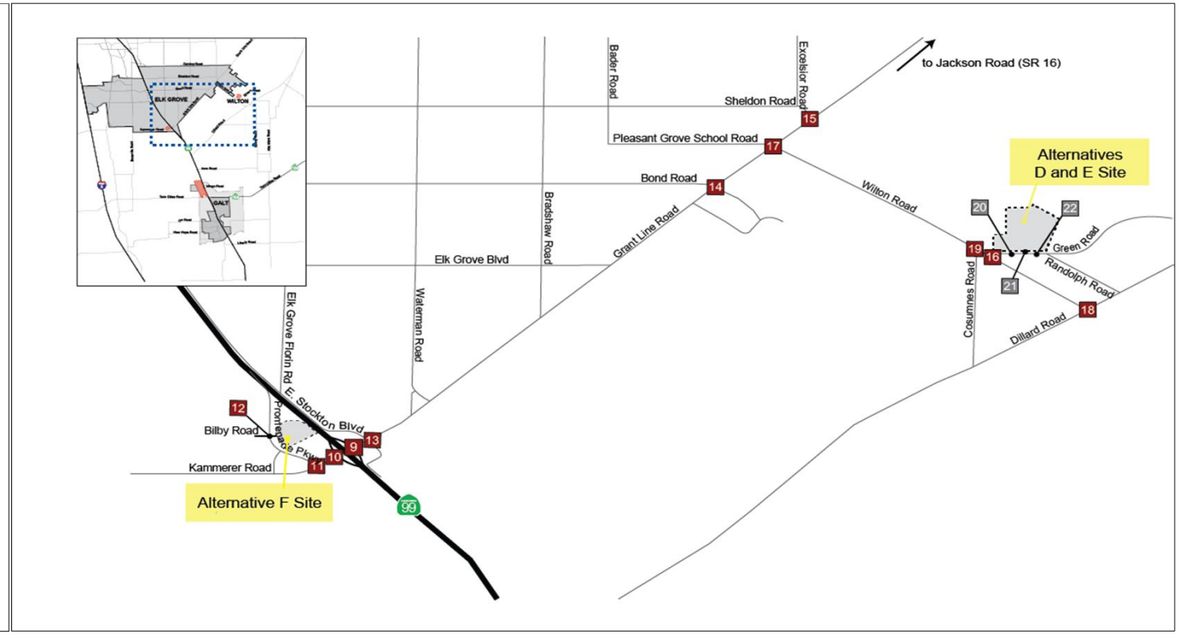


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FIGURE 28

ALTERNATIVE B - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

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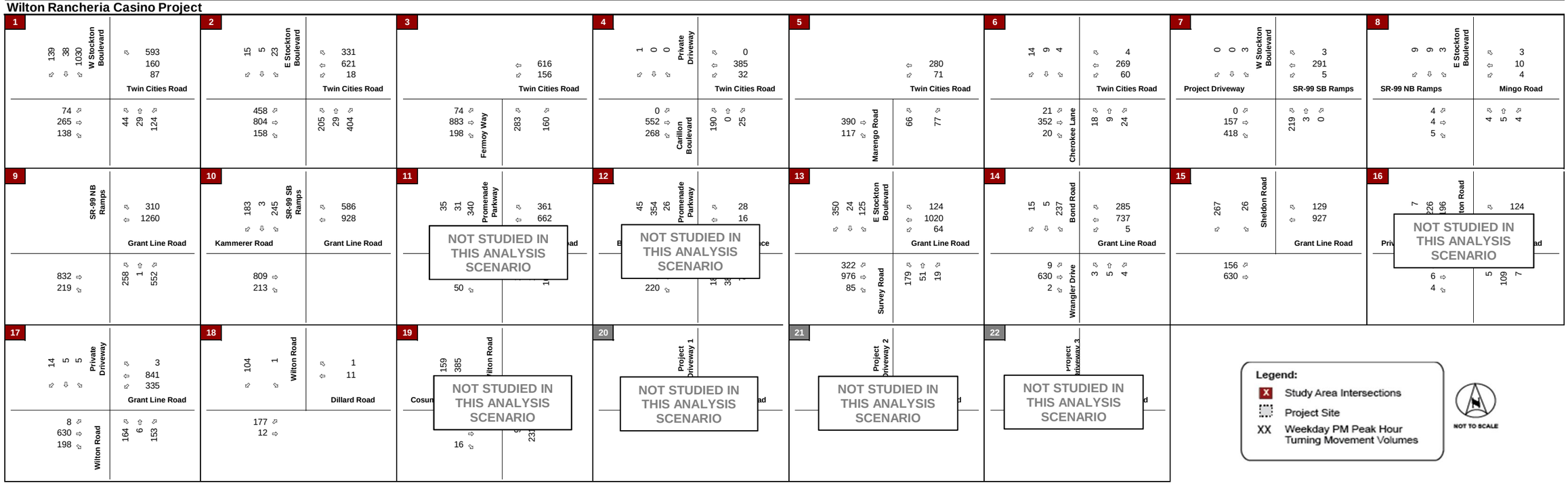
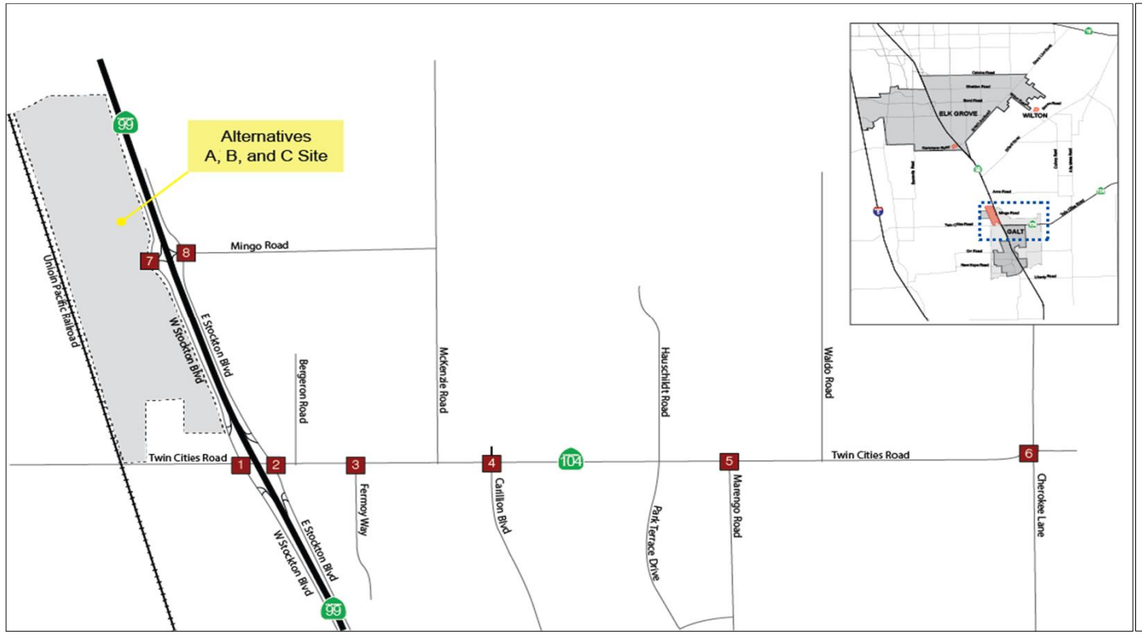
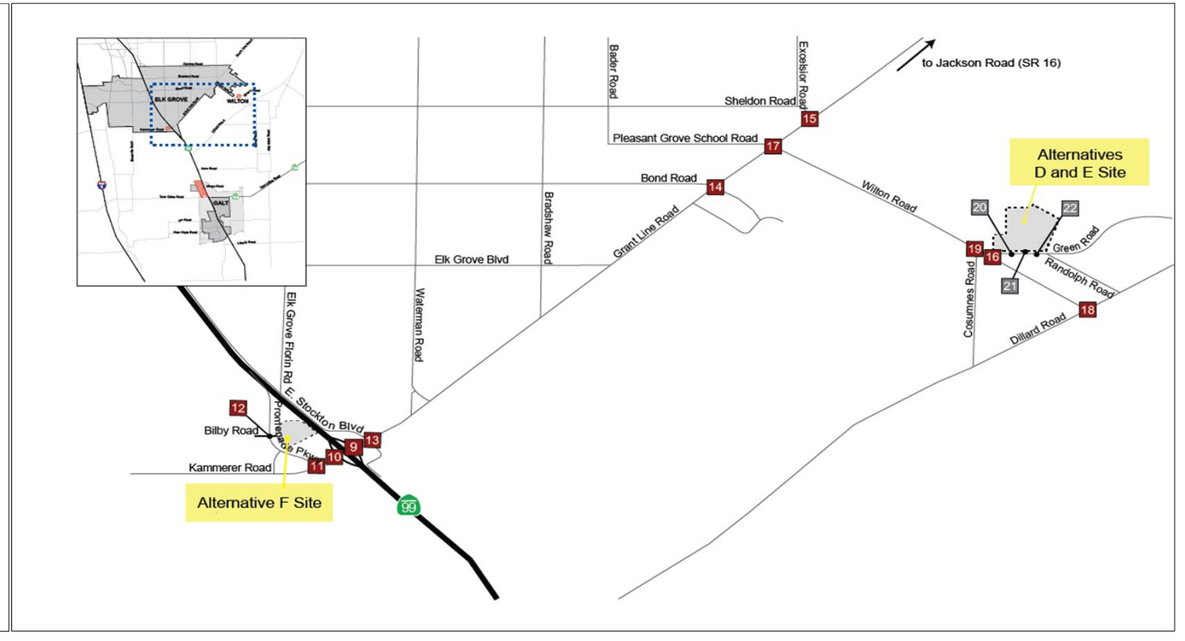
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)



Kimley»Horn

FIGURE 29

NEAR-TERM PLUS PROJECT ALTERNATIVE B WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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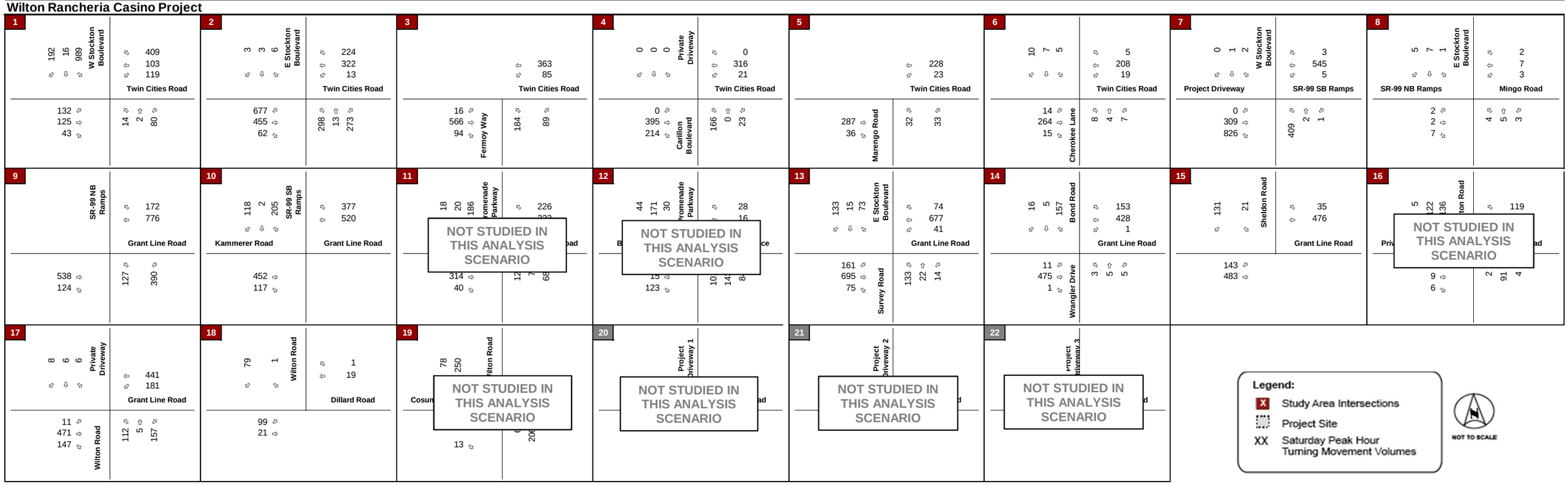
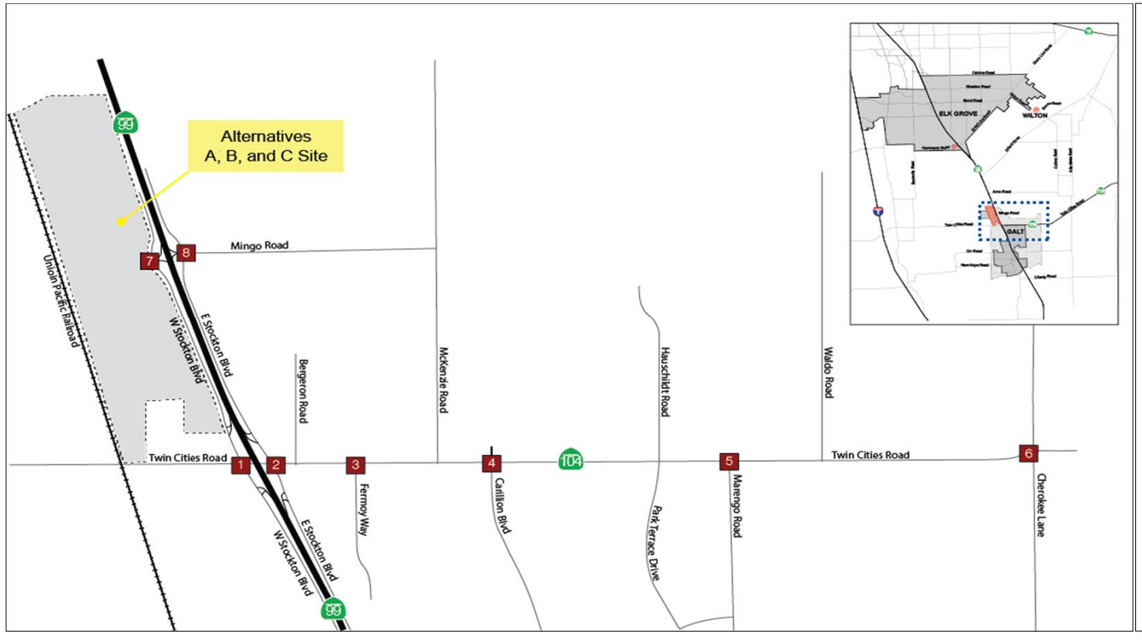
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

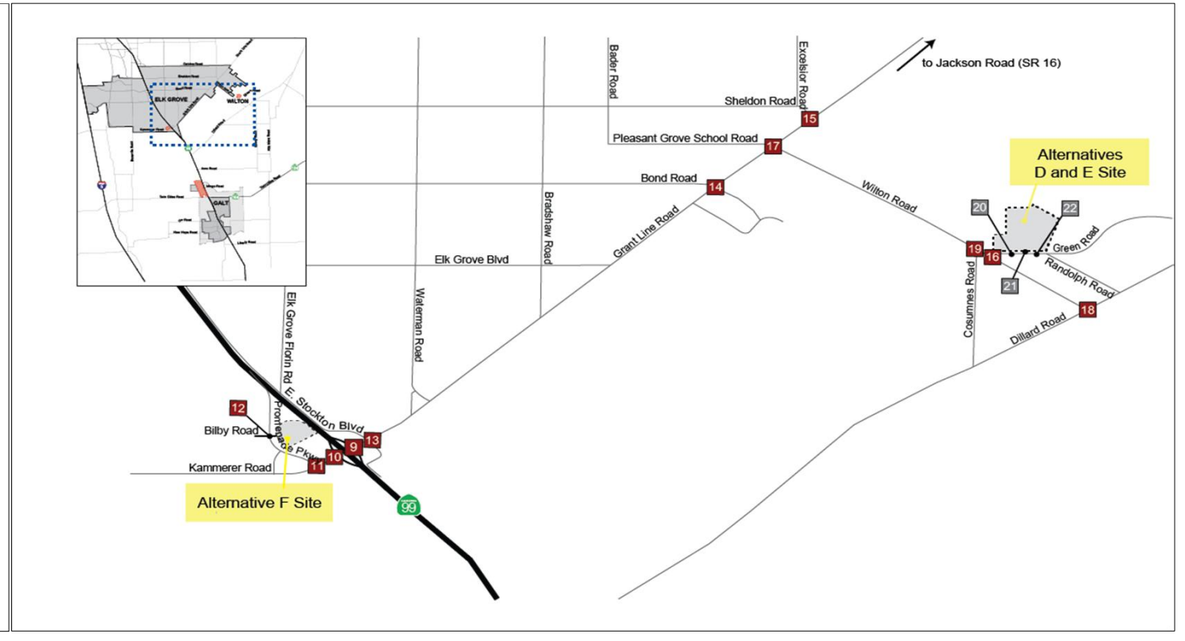


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FIGURE 30

NEAR-TERM PLUS PROJECT ALTERNATIVE B SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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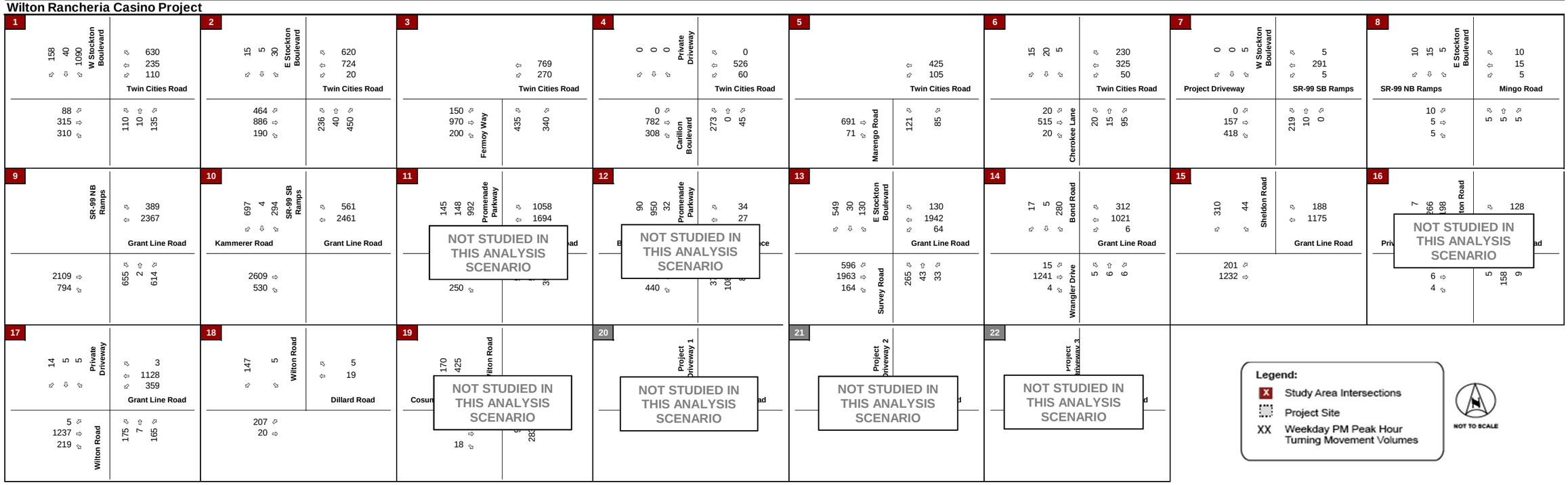
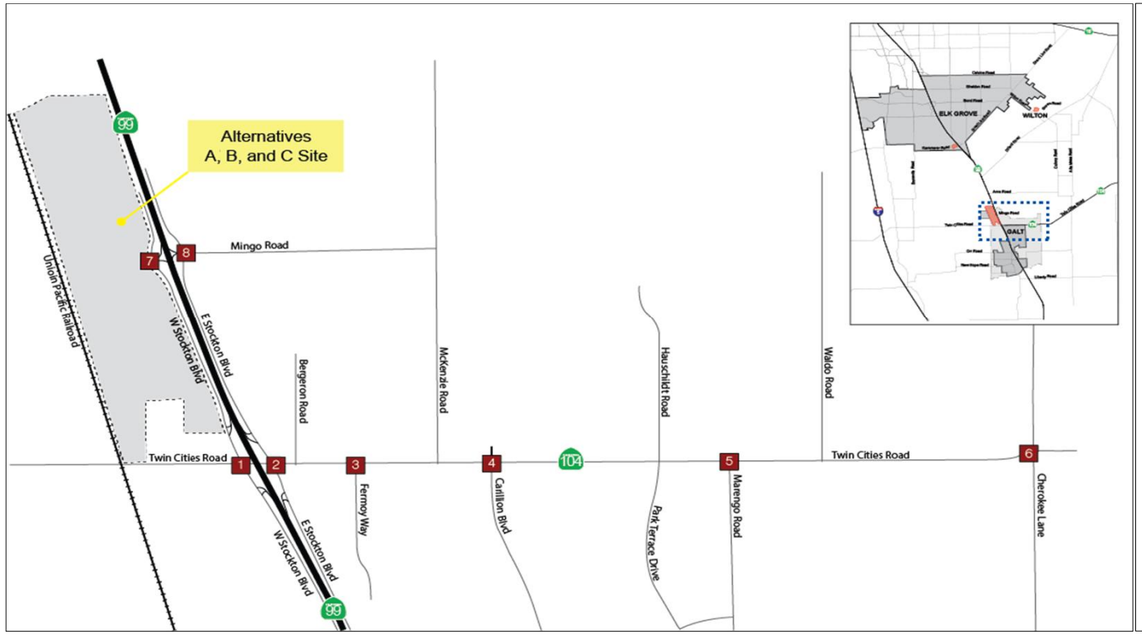
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

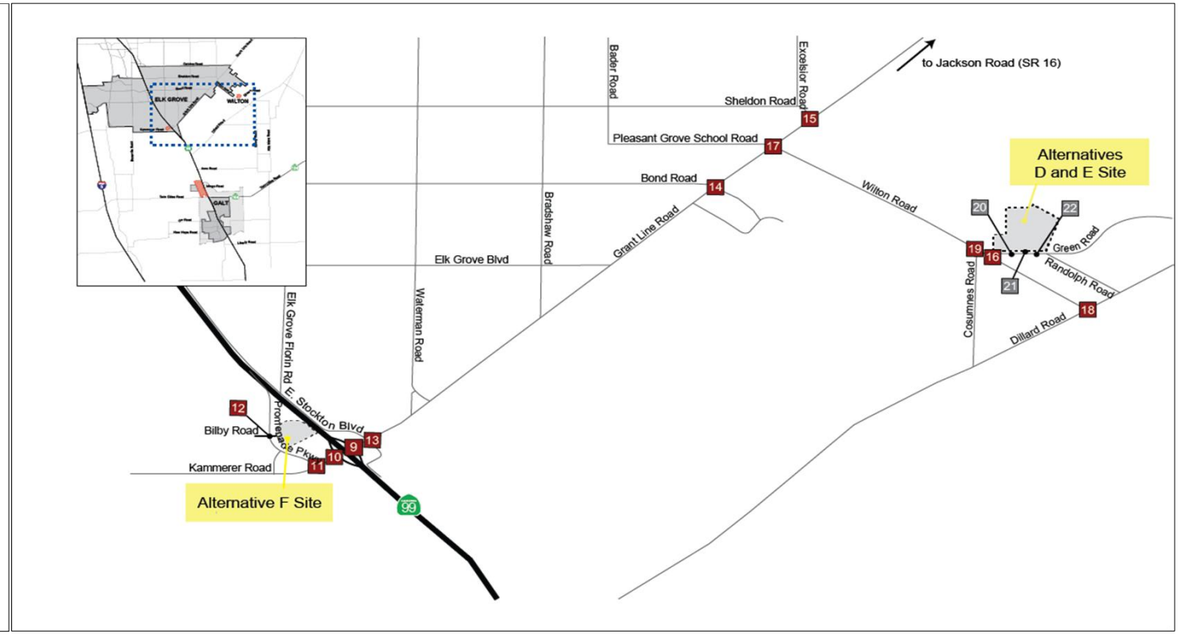
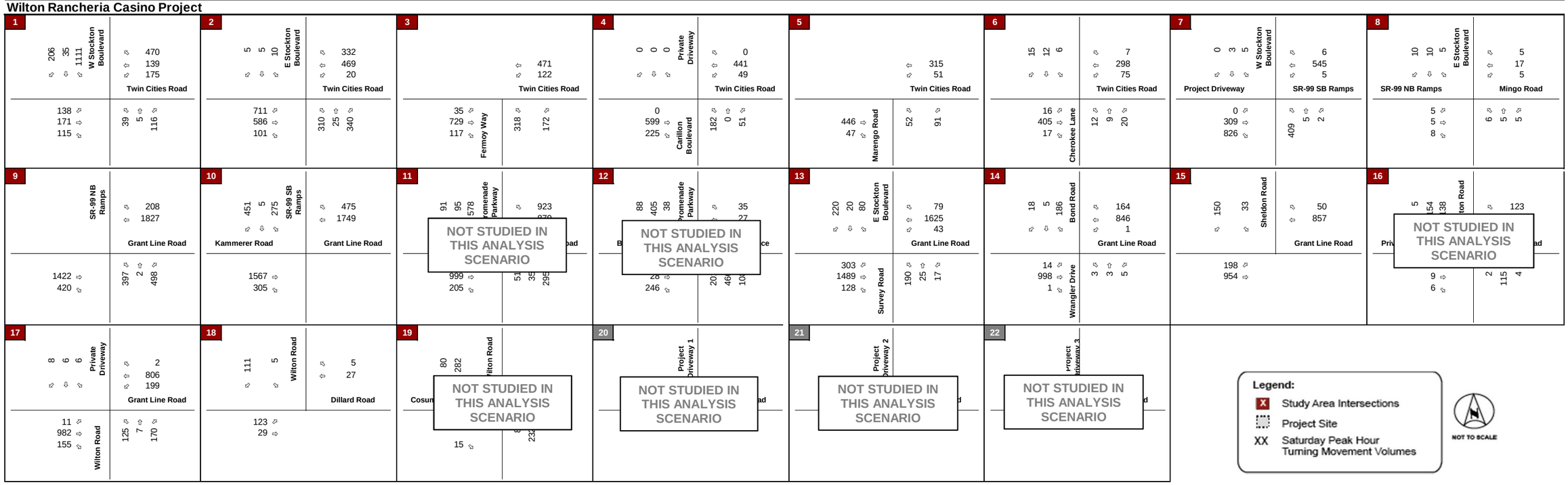


FIGURE 31

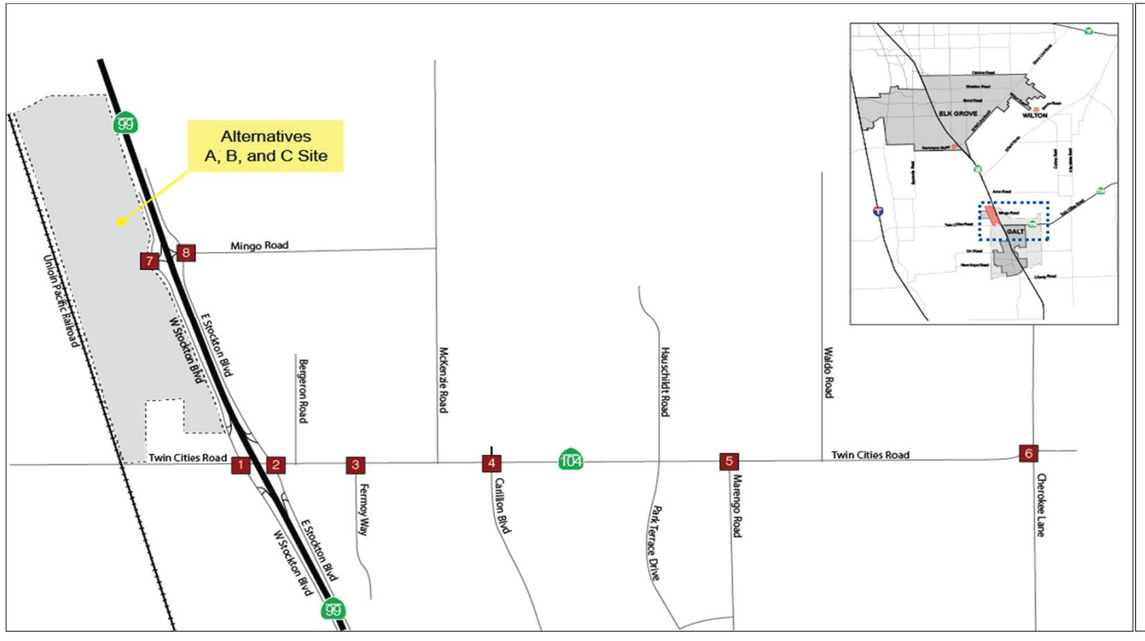
CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE B WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]HY+P-B-PM Figure

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

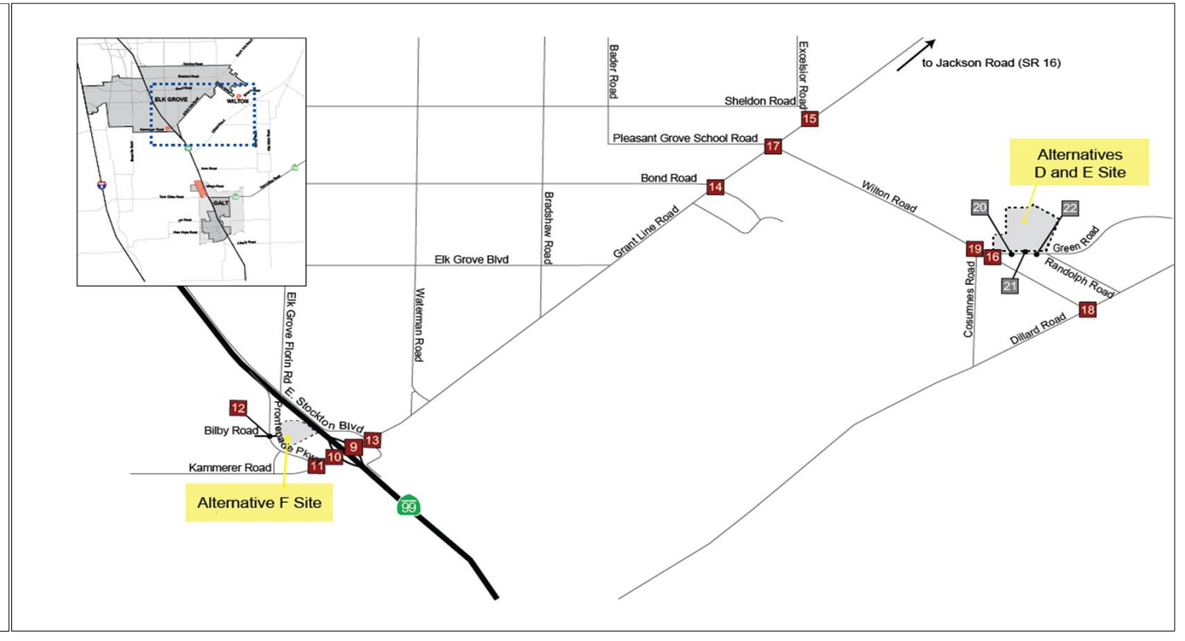


Table 31 – Alternative B Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	27.7	A	7.6	**F**	**107.2**	**F**	**76.2**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	29.3	A	8.0	**F**	**100.4**	**F**	**59.7**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	B	16.7	B	11.5	B	16.7	B	11.5
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	12.2	A	9.6	B	12.4	A	9.8
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	B	13.5	A	9.7	B	13.8	A	9.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	C	16.9	B	12.6	C	17.1	B	12.9
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.7	A	8.6	C	21.7	D	48.0
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.2	A	9.1	A	9.2	A	9.1
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	10.9	A	7.0
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	A	6.2	A	6.4
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2	**E**	**56.3**	C	28.5
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	C	23.3	C	20.1
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	C	20.1	B	11.6
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	D	51.9	C	24.2
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	8.1	A	7.6
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold.** Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

Table 32 – Alternative B Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**F**	**61.0**	B	12.7	**F**	**154.5**	**F**	**144.2**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**E**	**44.0**	B	11.6	**F**	**149.1**	**F**	**112.8**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	C	29.6	B	14.4	C	29.8	B	14.5
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	14.5	A	9.6	B	14.8	B	10.1
5	Twin Cities Rd/Marengo Rd	Signal	D	-	B	10.4	A	7.9	B	10.4	A	7.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	D	26.6	C	21.1	D	27.0	C	21.7
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.8	A	8.8	C	22.0	D	48.8
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.5	A	9.3	A	9.5	A	9.3
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	B	17.6	B	15.1
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	B	18.0	B	14.3
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**121.6**	D	46.2
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	C	24.2	B	19.2
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	14.8	B	11.4
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	D	45.3	C	22.3
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	A	8.6	A	7.9
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**. Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road

Cumulative (2035) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road

Because the current SR 99/Mingo Road interchange configuration does not facilitate access between the east and west sides of the freeway, project traffic traveling to/from northbound SR 99 must use the Twin Cities interchange and West Stockton Boulevard to access the project site. This adds a considerable amount of additional traffic to the Twin Cities roundabouts, which contributes to the congested conditions at these locations.

It should be noted that the intersection of Grant Line Road/East Stockton Boulevard is projected to operate at unacceptable LOS E for Near-Term (2018) conditions and LOS F for Cumulative (2035) without the project and will continue to operate at LOS E and F with the addition of the project. However, the project does not increase the average control delay at the intersection by five (5) seconds or more; thus, no project-related impact is identified at this location based on the established significance criteria.

6.8 Alternative B LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 33** summarizes the near-term (2018) roadway segment levels of service. **Table 34** summarizes the cumulative (2035) roadway segment levels of service.

As shown in the near-term table, project traffic will add traffic to several roadway segments that are projected to operate at deficient levels of service without the project; however, the project does not cause an increase in the roadway segment V/C ratio of 0.05 or more; thus, no project impacts are identified.

As shown in the cumulative table, all study roadway segments operate at acceptable levels of service with the addition of project traffic.

Table 33 – Alternative B Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**23,348**	**F**	+0.009	13,458	C	
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	8,281	A		5,976	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	4,813	A		7,707	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	9,077	A		4,915	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,596	A		4,113	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	6,871	A		3,721	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	11,214	D		9,670	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	11,577	A		9,983	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	25,414	A		19,781	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	24,557	B		19,126	A	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**22,466**	**F**	+0.023	**17,526**	**E**	+0.036
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**18,607**	**F**	+0.023	14,695	D	
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**20,062**	**F**	+0.023	15,414	D	
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**18,987**	**F**	+0.023	14,607	D	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	4,904	C		3,894	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	9,965	D		8,321	D	
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	3,791	C		3,292	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	4,129	C		3,754	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,089	B		2,077	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 34 – Alternative B Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	25,218	C		14,522	A	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	10,716	A		7,361	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	4,820	A		7,718	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	30,240	A		16,374	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,460	B		12,162	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,659	A		10,103	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	33,258	B		28,678	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	35,164	B		30,322	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	47,495	D		37,013	B	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	42,994	C		33,570	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	32,021	A		25,176	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	26,407	C		21,051	A	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	27,380	C		21,257	A	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	21,734	B		17,016	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	5,604	C		4,431	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	9,882	D		8,252	D	
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	3,708	C		3,219	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	4,295	C		3,905	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,172	B		2,159	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

6.9 Alternative B LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project. As with the no project scenarios, freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 35** and **Table 36**, respectively.

Table 35 – Alternative B Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	31.0	4.7%	C	21.0	5.0%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	27.7	4.9%	C	21.1	5.7%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	31.2	13.9%	C	23.0	13.3%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	31.4	13.8%	C	23.1	13.8%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	31.8	14.4%	C	23.3	13.7%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	D	27.5	13.2%	C	24.5	12.9%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	24.4	11.4%	C	22.5	11.9%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.5	6.3%	C	21.1	7.1%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	28.6	5.1%	C	23.2	5.0%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	30.2	5.6%	C	22.6	5.6%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	D	33.2	6.1%	C	24.0	5.7%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	**E**	**35.3**	12.8%	C	25.4	11.4%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	29.3	11.8%	C	23.5	11.9%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	D	28.0	11.1%	C	24.0	11.1%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	D	27.2	11.0%	C	23.5	11.4%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	23.3	9.9%	C	22.1	10.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	24.9	6.0%	B	15.5	8.4%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 36 – Alternative B Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**35.5**	**E**	4%	28.0	C	4.9%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	29.7	D	3.8%	24.0	C	5.3%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	31.4	D	4.0%	25.1	C	5.0%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	30.2	D	0.0%	23.6	C	0.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	31.8	D	8.2%	25.4	C	10.4%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	35.5	D	8.6%	27.9	C	10.7%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**35.5**	**E**	3.2%	28.6	D	3.6%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	32.9	D	10.4%	25.6	C	13.3%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	34.5	D	8.8%	**39.6**	**E**	57.8%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	21.3	C	12.7%	19.7	B	13.9%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	C	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	25.0	C	10.1%	21.8	C	11.2%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 37** and **Table 38**, respectively.

Table 37 – Alternative B Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**E**	**41.2**	5.4%	**E**	**35.4**	5.0%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**E**	**41.2**	5.9%	**E**	**35.4**	5.4%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**53.7**	19.3%	**E**	**40.8**	15.9%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**54.0**	19.5%	**E**	**41.1**	16.1%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**55.2**	19.7%	**E**	**44.7**	17.0%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**43.8**	15.9%	**E**	**42.0**	15.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**42.4**	14.3%	**E**	**38.0**	13.4%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**38.6**	7.5%	**E**	**37.0**	7.2%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**53.3**	7.7%	**F**	**45.8**	6.8%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**55.7**	8.6%	**E**	**40.6**	6.8%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**58.3**	8.8%	**F**	**45.9**	7.2%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**64.2**	19.3%	**F**	**49.7**	15.9%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	30.8	12.0%	D	27.6	11.7%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	30.8	6.2%	D	28.7	11.2%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	D	27.5	10.9%	C	25.6	11.3%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	D	26.7	10.3%	C	25.7	10.3%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	28.4	5.6%	C	23.0	5.5%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 38 – Alternative B Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**46.0**	**F**	7%	**42.1**	**F**	7.7%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**39.3**	**F**	6.8%	**36.4**	**E**	7.4%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**42.0**	**F**	6.9%	**37.1**	**E**	7.3%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**38.8**	**E**	4.0%	**35.8**	**E**	4.4%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**41.1**	**F**	10.2%	**37.0**	**E**	11.1%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**46.0**	**F**	6.5%	**42.0**	**F**	6.9%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**45.0**	**F**	2.5%	**41.4**	**F**	2.7%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**43.4**	**F**	7.7%	**38.5**	**E**	8.5%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**44.0**	**F**	6.8%	**39.6**	**E**	7.3%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	32.3	D	9.9%	28.4	D	1.1%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	D	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	25.0	C	10.1%	23.9	C	12.2%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent (5%) with the addition of the project. Significant congestion is expected with and without the project.

6.10 Alternative B Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative B traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown on **Table 39** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 39 – Alternative B Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	No mitigation necessary	-	-
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 39 – Alternative B Summary of Mitigations (cont.)
Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	No mitigation necessary	-	-
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

The key component of the Alternative B mitigations is the proposed reconstruction of the Mingo Road/SR 99 interchange to provide full access between the project site and NB and SB SR 99. This improvement removes a substantial amount of project trips that would otherwise have to navigate south to the NB SR 99 ramps near Twin Cities, which would further exacerbate projected future congestion at the Twin Cities roundabouts. A preliminary design concept for the reconstructed Mingo Road interchange has been developed for the purposes of this study and is shown in **Figure 23** and is discussed in further detail in the Alternative A mitigation discussion.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities and Mingo interchanges, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 24% based on standard Caltrans methodology for calculating equitable mitigation measures.

Table 40 and **Table 41** summarize the expected intersection levels of service with the proposed mitigation.

Table 40 – Alternative B Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	D	27.7	A	7.6	**F**	**107.2**	**F**	**76.2**	**E**	**40.8**	A	9.7
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	D	29.3	A	8.0	**F**	**100.4**	**F**	**59.7**	**F**	**71.2**	B	10.1
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	B	16.7	B	11.5	B	16.7	B	11.5	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	12.2	A	9.6	B	12.4	A	9.8	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	13.5	A	9.7	B	13.8	A	9.9	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	C	16.9	B	12.6	C	17.1	B	12.9	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.7	A	8.6	C	21.7	D	48.0	A	8.0	B	15.5
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.2	A	9.1	A	9.2	A	9.1	B	12.4	B	14.3
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	10.9	A	7.0	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	A	6.2	A	6.4	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**56.3**	C	28.5	**-**	**-**	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	C	23.3	C	20.1	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	C	20.1	B	11.6	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	D	51.9	C	24.2	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	8.1	A	7.6	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													A	9.8	A	9.5

Notes:

1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.

2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

Table 41 – Alternative B Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	**F**	**61.0**	B	12.7	**F**	**154.5**	**F**	**144.2**	**F**	**74.5**	C	19.0
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	E	44.0	B	11.6	**F**	**149.1**	**F**	**112.8**	**F**	**57.6**	C	17.1
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	C	29.6	B	14.4	C	29.8	B	14.5	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	14.5	A	9.6	B	14.8	B	10.1	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	10.4	A	7.9	B	10.4	A	7.9	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	D	26.6	C	21.1	D	27.0	C	21.7	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.8	A	8.8	C	22.0	D	48.8	A	8.0	B	15.5
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.5	A	9.3	A	9.5	A	9.3	B	12.4	B	14.3
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	B	17.6	B	15.1	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	B	18.0	B	14.3	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**121.6**	D	46.2	**-**	**-**	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	C	24.2	B	19.2	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	14.8	B	11.4	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	D	45.3	C	22.3	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	A	8.6	A	7.9	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													A	9.8	A	9.5

Notes:
1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.
2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

As shown in the tables, the Twin Cities Roundabouts at W. Stockton and E. Stockton Boulevard are still anticipated to operate at unacceptable levels of service with implementation of the recommended mitigation measures. With modifications to the SR-99/Mingo Road interchange, site ingress/egress is improved and project traffic is no longer required to divert to the Twin Cities interchange to access northbound SR- 99. While the average delay at these locations would be reduced by approximately 30-90 seconds at each these intersections during the worst-case peak hour period with reconstruction of the Mingo Road interchange, these roundabouts would continue to experience large delays.

As mentioned previously, the City of Galt previously identified long-term plans for full reconstruction of the Twin Cities Road/SR 99 interchange, which would improve traffic operations at these two intersections. Initial concept plans for this project identified widening of the Twin Cities Road overcrossing, realignment of East Stockton Boulevard and West Stockton Boulevard farther east and west, respectively, addition or direct ramp terminals joining Twin Cities Road and elimination of the existing hook ramps. Improvements of this magnitude are anticipated to require significant costs and right-of-way acquisition. The City is not currently collecting any funds for this project; thus this project is unlikely to be constructed in the foreseeable future. For this reason, the resulting project impacts to the W. Stockton and E. Stockton roundabout intersections will remain significant.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Project Alternative B is anticipated to add up to 2,300 vehicle trips per day to East Stockton Boulevard between Mingo Road and Twin Cities Road, where existing daily traffic volumes are very low (under 200 vehicles per day). Per County staff, the existing pavement condition index (PCI) for this roadway segment is 20, which represents very poor/deteriorated condition. For the portion of East Stockton Boulevard where roadway realignment is proposed, the project should reconstruct the roadway to provide a 60-foot right-of-way with a 12.5-foot public utility easement on the west side and a 20-foot public utility public facilities easement on the east side of the roadway. South of the portion of the roadway where realignment is proposed to Twin Cities Road, the project should be responsible for reconstructing East Stockton Boulevard to the County's Improvement Standards, where feasible within existing public right-of-way. Other than Mingo Road, which will be improved to meet County standards between the project access driveway and East Stockton Boulevard as part of the proposed interchange improvements, proposed project is anticipated to add very few new trips to other rural County roadways in the area.

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are no existing or planned sidewalks, trails or designated bicycle facilities within the vicinity of the proposed project site; thus the project would not inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site and the proposed modifications to the Mingo Road Interchange include considerations for pedestrian and bicycle facilities.

Because no fixed route transit service will be available at the project site, the casino and hotel should provide a shuttle that provides service to locations with connections to existing transit services in the City of Galt and Elk Grove. The shuttle could run throughout the day or could be called out on demand.

6.11 Alternative B VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative B is summarized in **Table 42**.

Table 42 – Alternative B VMT

Alternative B - Reduced Intensity Twin Cities Casino							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	42%	30.8	8,137	250,620	13,044	401,755
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	44%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	15%					

6.12 Alternative B Construction Traffic Impacts

Impacts resulting from the construction of Alternative B would be temporary in nature. Construction activity impacts would be concentrated on W. Stockton Boulevard in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.
- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays.

7. ALTERNATIVE C – RETAIL ON THE TWIN CITIES SITE

Alternative C represents the evaluation of traffic conditions with the construction of a retail development alternative at the Twin Cities site. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

7.1 Proposed Site Uses

The Alternative C retail project is to be located at the Twin Cities site, as shown in **Figure 1**, just west of SR 99 and north of Twin Cities Road near Mingo Road. This location is just north of the Galt City Limit, but within the City's Sphere of Influence.

Figure 33 shows the proposed layout of the project site. As seen in the figure, the buildings and other related facilities are located in the northern portion of the parcel, which currently includes predominantly agricultural uses.

The project site includes a commercial shopping center, which is likely to contain a mixture of uses such as a grocery, big box retail, restaurants and other general retail services. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Shopping Center – 686,000 s.f.

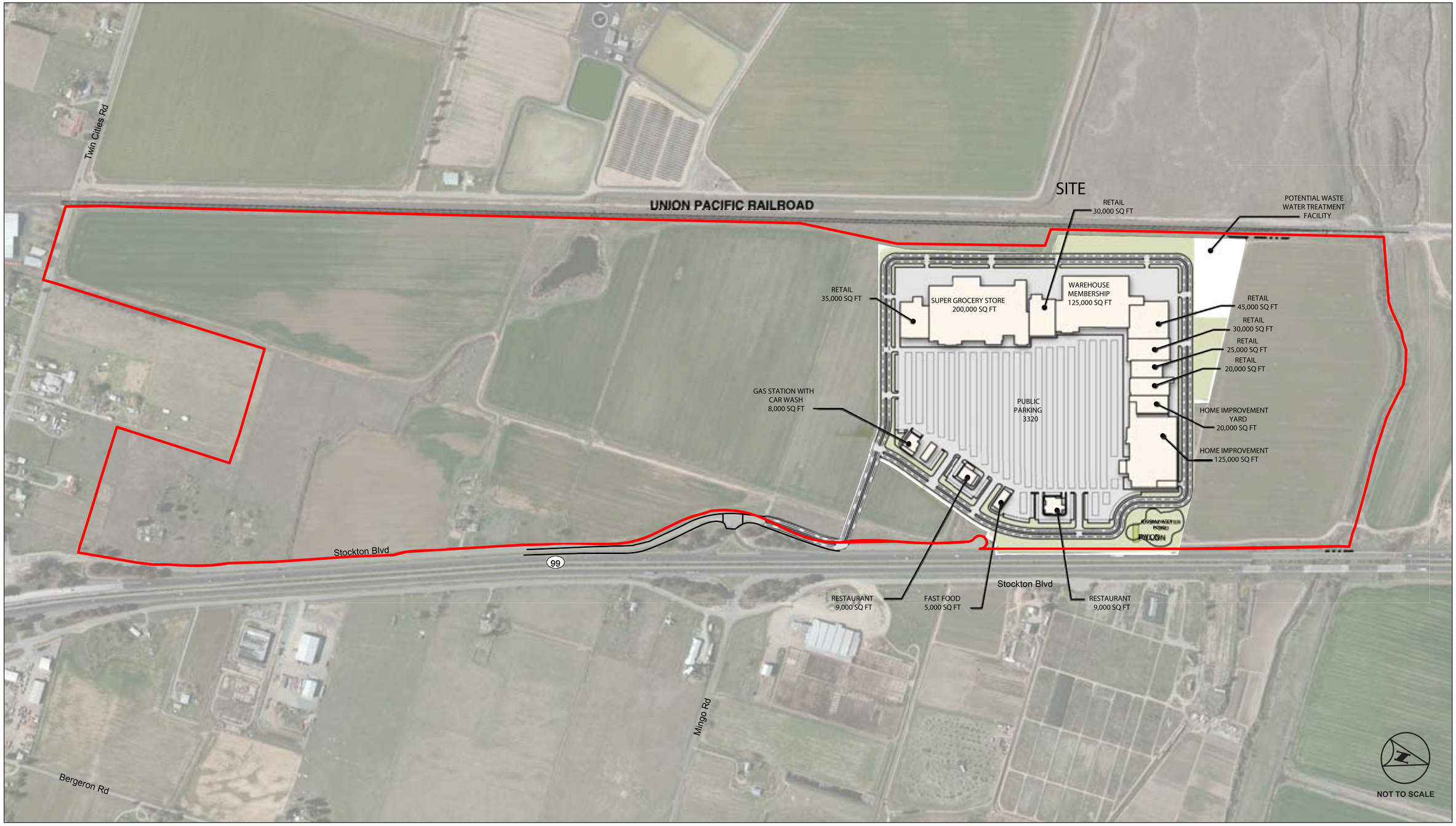


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Figure 33
Alternative C Site Plan

7.2 Site Access

The main project access is from West Stockton Boulevard with a new intersection leg to be constructed at the west side of the existing West Stockton Boulevard/SR 99 SB Ramps unsignalized intersection near Mingo Road (Intersection #7). The project is assumed to construct the new western leg of this intersection two approach lanes and two receiving lanes and the intersection is assumed to be signalized in conjunction with the project. It should be noted that full access to SB SR 99 is conveniently provided from the project driveway intersection at West Stockton Boulevard; however access to/from NB SR 99 is limited, as the Mingo Road interchange does not include an existing bridge connecting the project site to the east side of SR 99. For this reason, project traffic traveling to/from SR 99 must navigate to and from the site via the SR 99 NB ramps near Twin Cities Road.

7.3 Project Trip Generation

Shopping Center Trip Generation

ITE's *Trip Generation Manual, 9th Edition* was used to derive the trip generation estimates for the shopping center proposed in Alternative C. For this alternative, the trip generation estimates were adjusted to reflect pass-by trips/diverted link trips. These adjustments are further explained below.

Pass-By and Diverted Link Trips for Retail Uses
Each of the individual retail uses within the shopping center proposed in Alternative C will create a specific number of vehicle trips; however, many of the trips will already be on the adjacent roadways and will likely stop as they pass by the site as a matter of convenience.

Because the existing volumes along the street adjacent to the proposed site access for project Alternative C are relatively low, no pass-by reductions were applied to the trip generation estimates.

Due to the proximity of the site to the SR-99 freeway, which carries over 70,000 vehicles per day, a considerable proportion of the project trips are anticipated to be diverted link trips from the freeway. ITE's *Trip Generation Handbook* includes ranges of diverted link trips from a large sample of surveyed shopping center sites (ranging from 6% to 44%); however, average rates are not reported. To be conservative, the diverted link rate assumed for this trip generation analysis was set at 15%, which is consistent with Caltrans guidance.

For the purposes of this analysis, no trip reductions were applied for internal trips for the retail center proposed in project Alternative C.

Table 43 – Alternative C Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Retail	820	686,000	s.f.	23,744	1,067	1,110	2,177	31,084	1,590	1,467	3,057
Diverted Link Trips (15%)				(3,562)	(164)	(163)	(327)	(4,663)	(230)	(229)	(459)
Net New Vehicle Trips				**20,182**	**903**	**947**	**1,850**	**26,421**	**1,360**	**1,238**	**2,598**

Shopping Center (ITE 820)

Weekday Daily	Ln(T) = 0.65 x Ln(1000's of SF) + 5.83	50% In	50% Out
Saturday Daily	Ln(T) = 0.63 x Ln(1000's of SF) + 6.23	50% In	50% Out
Weekday PM Peak Hour	Ln(T) = 0.67 x Ln(1000's of SF) + 3.31	49% In	51% Out
Saturday Peak Hour	Ln(T) = 0.65 x Ln(1000's of SF) + 3.78	52% In	48% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Trip generation rates from ITE *Trip Generation Manual, 9th Edition*.

(3) For Shopping Center land use (ITE 820), ITE's *Trip Generation Handbook, 2nd Edition* identifies a PM peak hour pass-by rate of 22% for a shopping center of the proposed size and a range of diverted link rates are provided for shopping center sites, varying from 6% to 44%. Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the trip generation estimates. The project site is located adjacent to State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 15%. This adjustment is likely conservative and is consistent with Caltrans' guidance for pass-by/diverted link trip reductions (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002).

7.4 Project Trip Distribution and Assignment

Because Alternative C includes only retail uses, this project alternative would be expected to have less of a regional draw compared to the casino project alternatives. For this alternative, a higher proportion of customers and employees would be expected to travel to the site from Galt, Elk Grove, and other nearby communities, with fewer trips traveling from the greater region. A similar procedure to that which was used for the casino alternatives was used to develop the initial trip distribution estimates for the shopping center. However, these initial estimates were ultimately refined based on knowledge of existing traffic flow patterns, locations of similar destinations, and based on trip distribution patterns established by other recent traffic studies in the proposed project's vicinity, such as the *Twin Cities Wal-Mart Transportation Impact Analysis* (Omni-Means, 2009).

Based on the likely customer and employee base for the site, orientation of the local and regional roadway network, and review of other recent traffic studies for projects in the vicinity of this site, it was estimated that approximately 22% of the project traffic would be distributed to destinations north of the site via SR-99. Approximately 39% of the project traffic would be distributed to the south via SR-99, with a considerable proportion of this traffic traveling to/from destinations in the Galt south of Twin Cities Road. Approximately 8% of the project traffic is distributed to areas to the west via Twin Cities Road, while 4% would be distributed to areas east of Galt via Twin Cities Road (SR-104). About 27% of the project traffic would be distributed to neighborhoods in northern Galt east of the site via Twin Cities Road.

Figure 34 illustrates the Alternative C project trip distribution.

Figure 35 and **Figure 36** show the Alternative C project traffic assignment for weekday and Saturday PM peak hour conditions. Because the Alternative C retail site is assumed to create less of a regional draw compared to the casino project alternatives, no adjustment was made to the cumulative (2035) trip distribution to reflect increased travel from eastern Sacramento County and El Dorado County via Grant Line Road in conjunction with the Capital SouthEast Connector Project, which will add capacity to the Grant Line Road corridor.

7.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative C project. **Figure 37** and **Figure 38** illustrate the combined near-term turning movement volumes at the study intersections.

7.6 Long-Term Plus Project Traffic Volumes

Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative C project. **Figure 39** and **Figure 40** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

7.7 Alternative C LOS Conditions and Impacts at Intersections

Traffic operations were evaluated for near-term conditions (2018) and long-term cumulative conditions with Alternative C (year 2035).

Results of the analysis are presented in **Table 44** and **Table 45**, respectively. Additional detail is provided in the **Appendix**.

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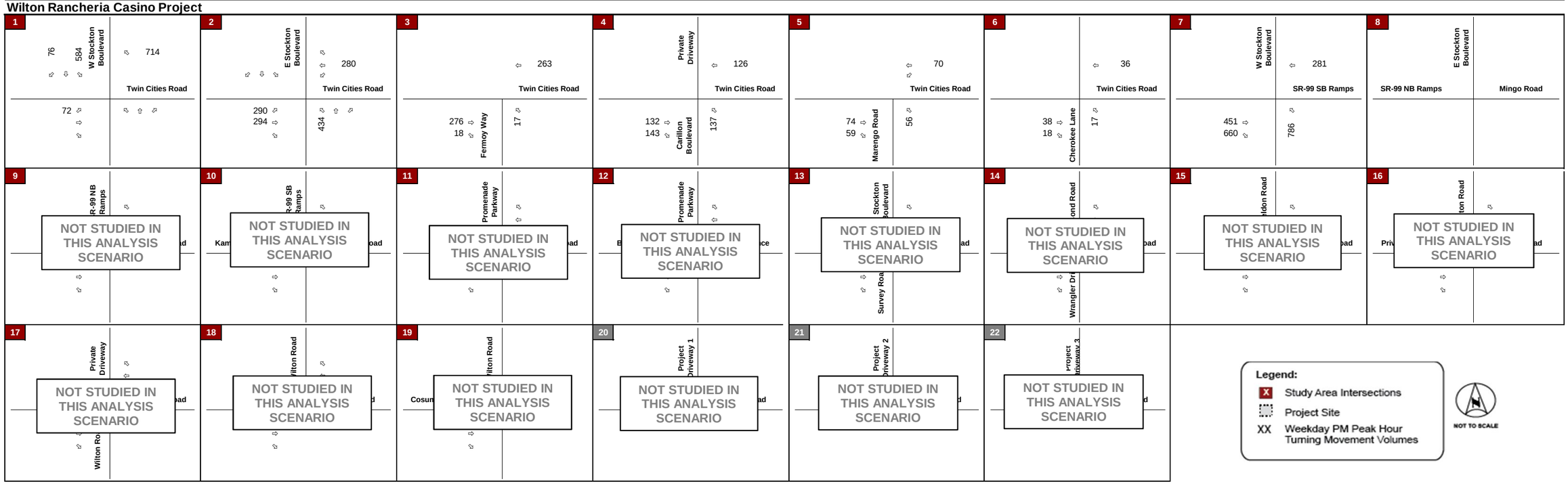
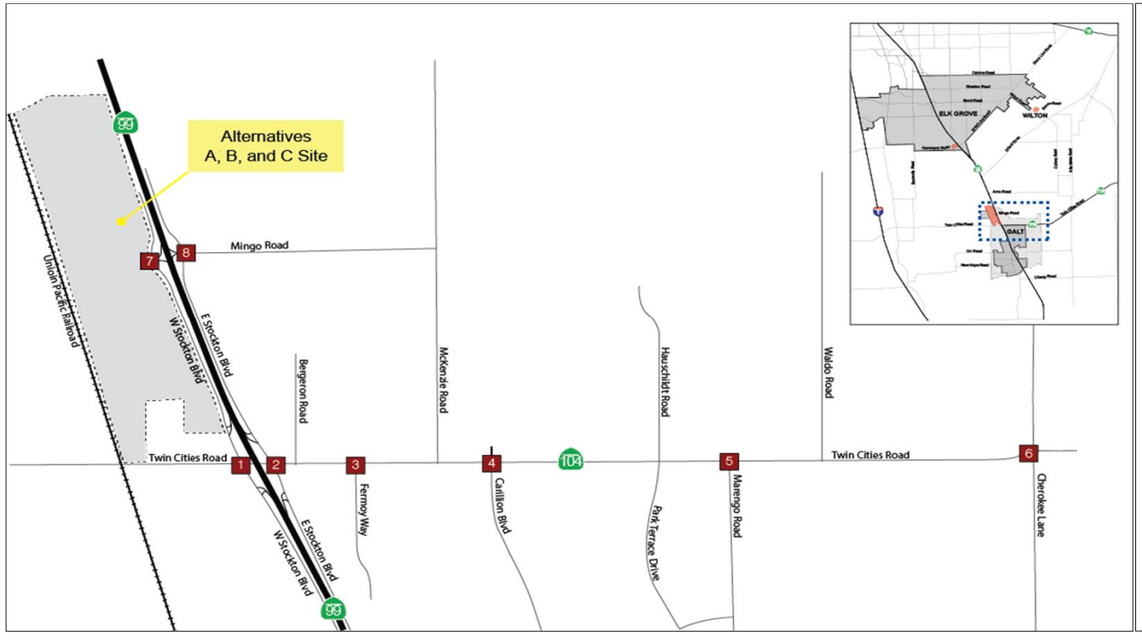
Figure 34

Project Trip Distribution - Twin Cities Site (Alternative C)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

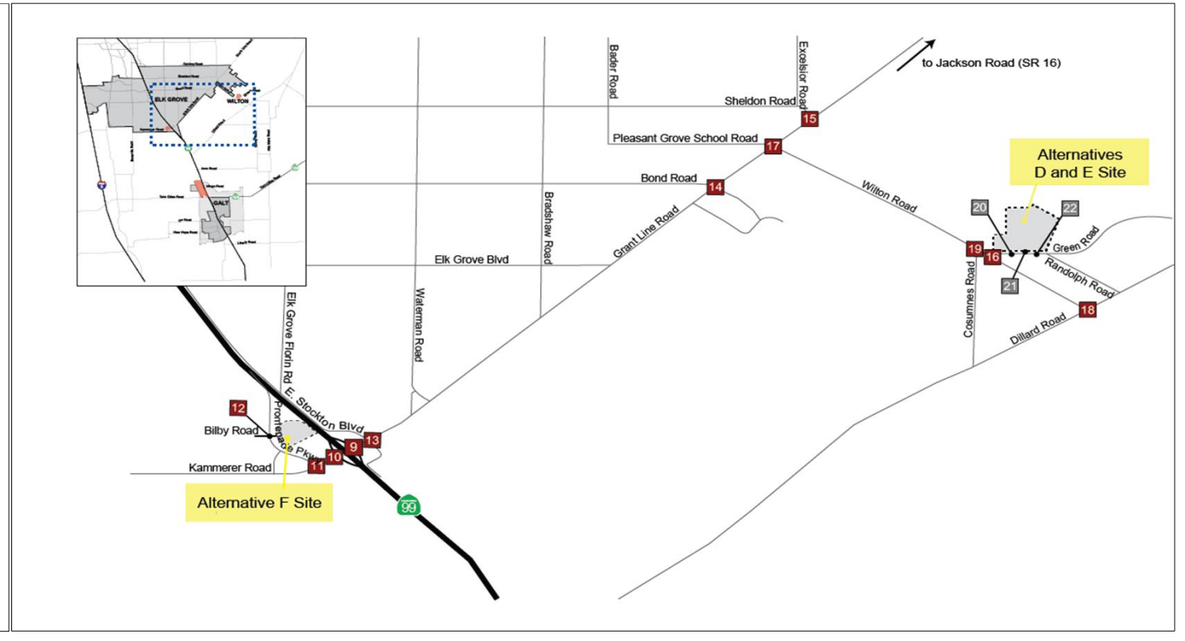


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FIGURE 35

ALTERNATIVE C - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT

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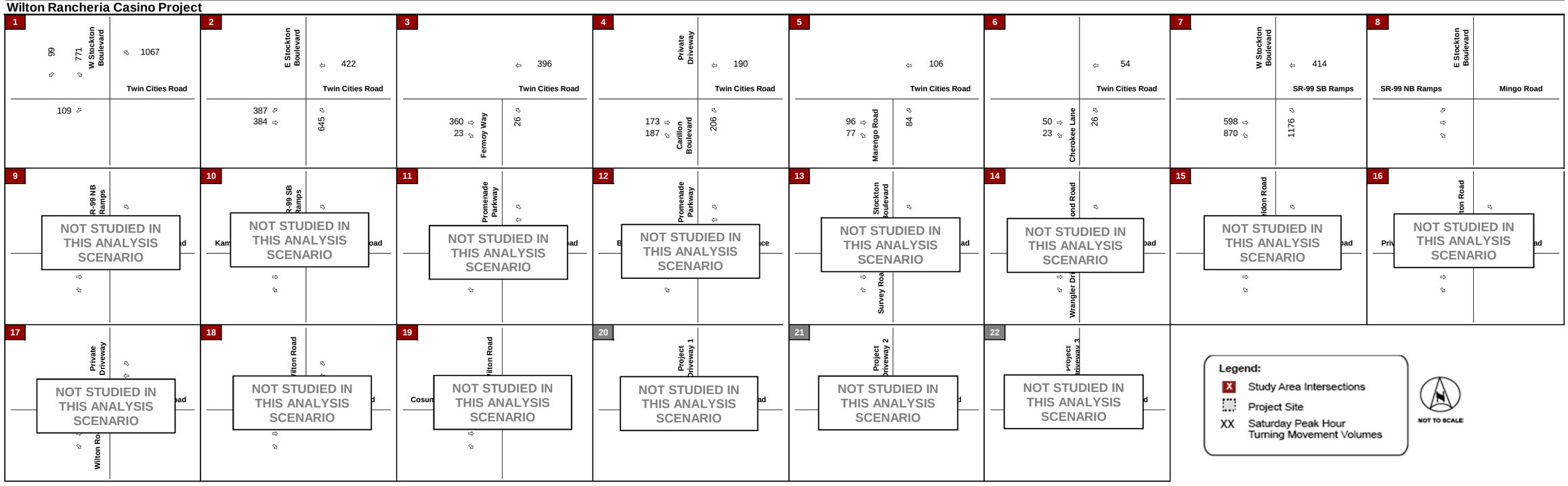
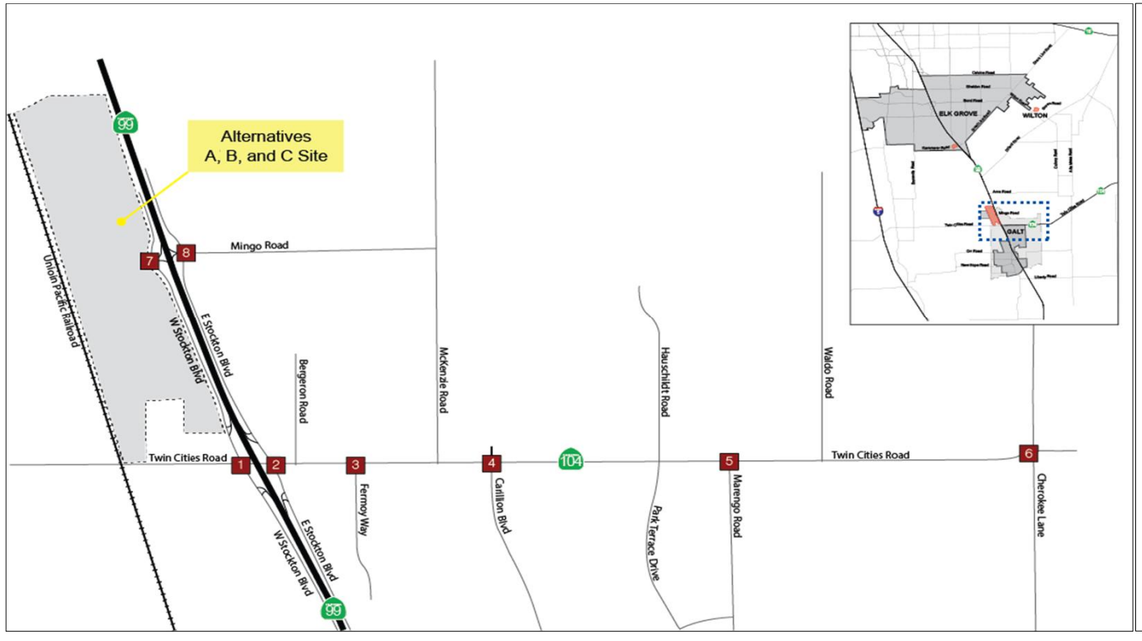
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

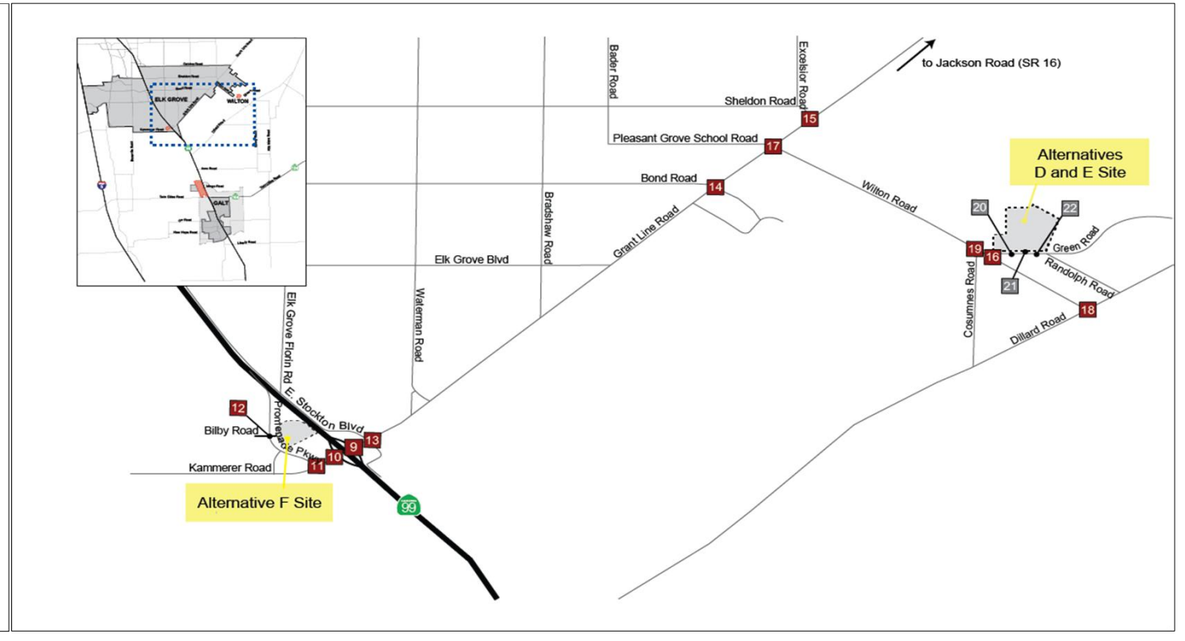


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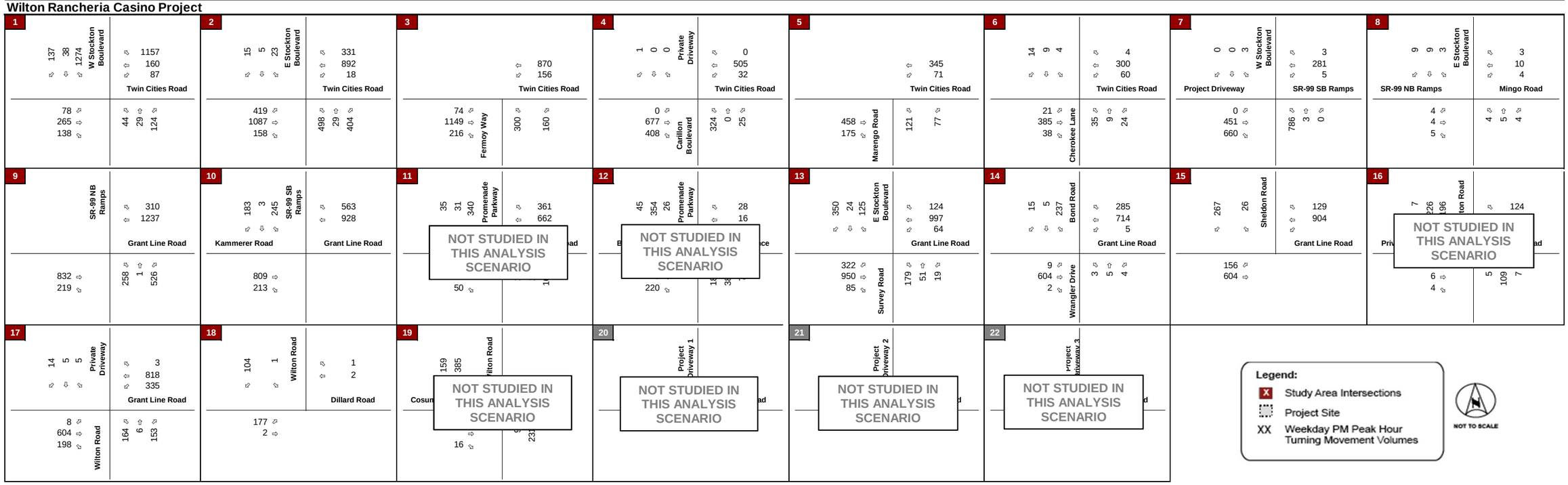
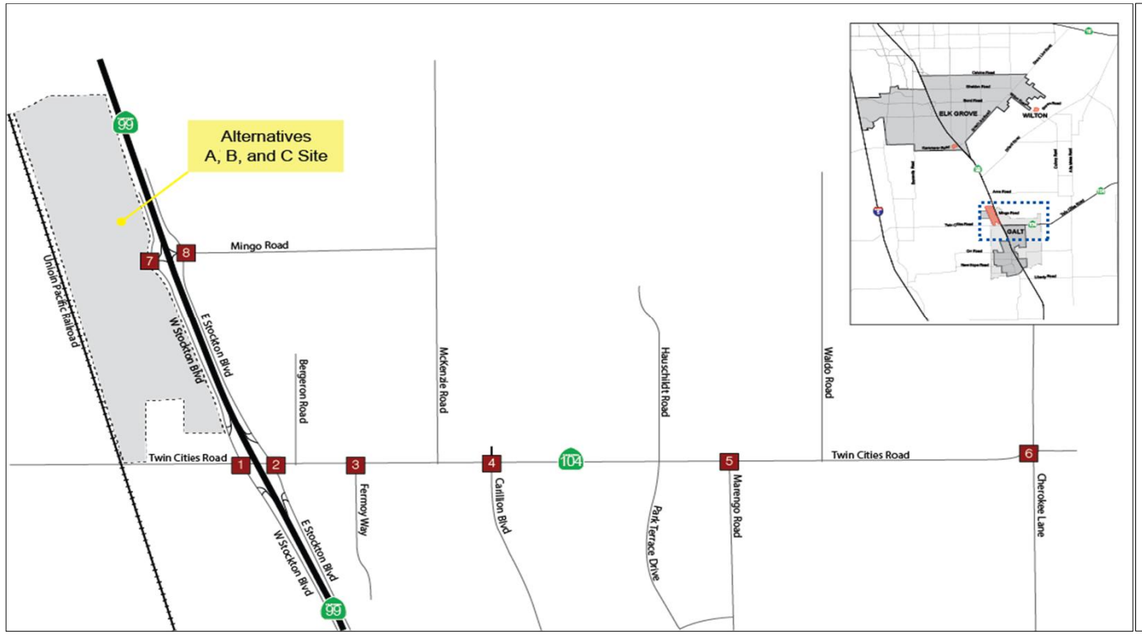
FIGURE 36

ALTERNATIVE C - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

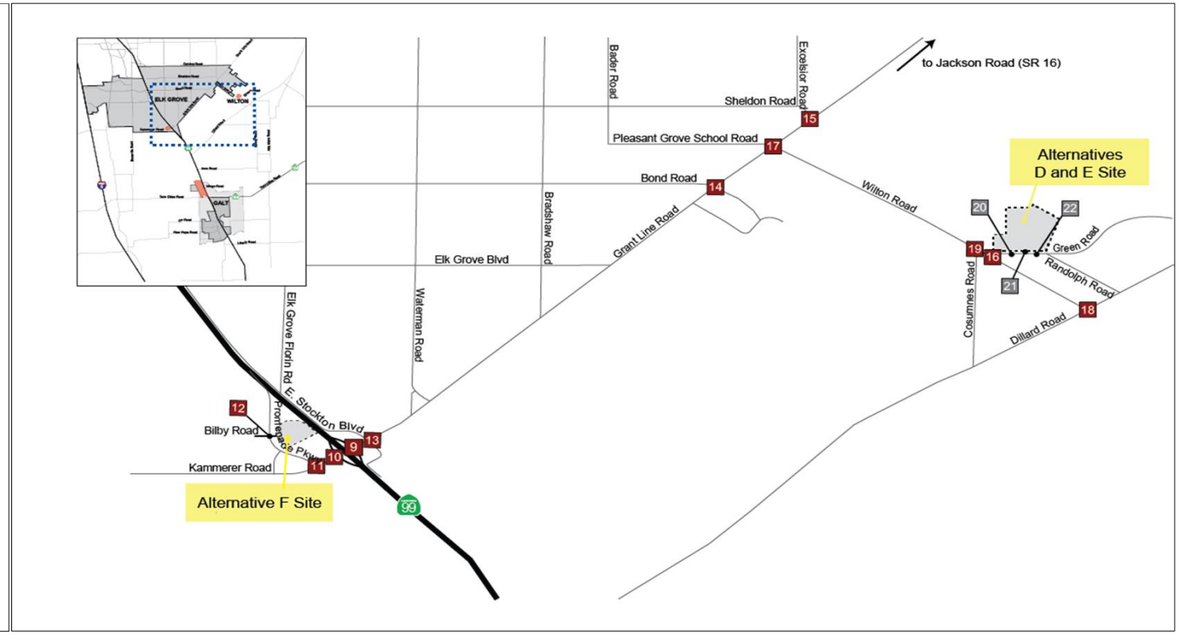


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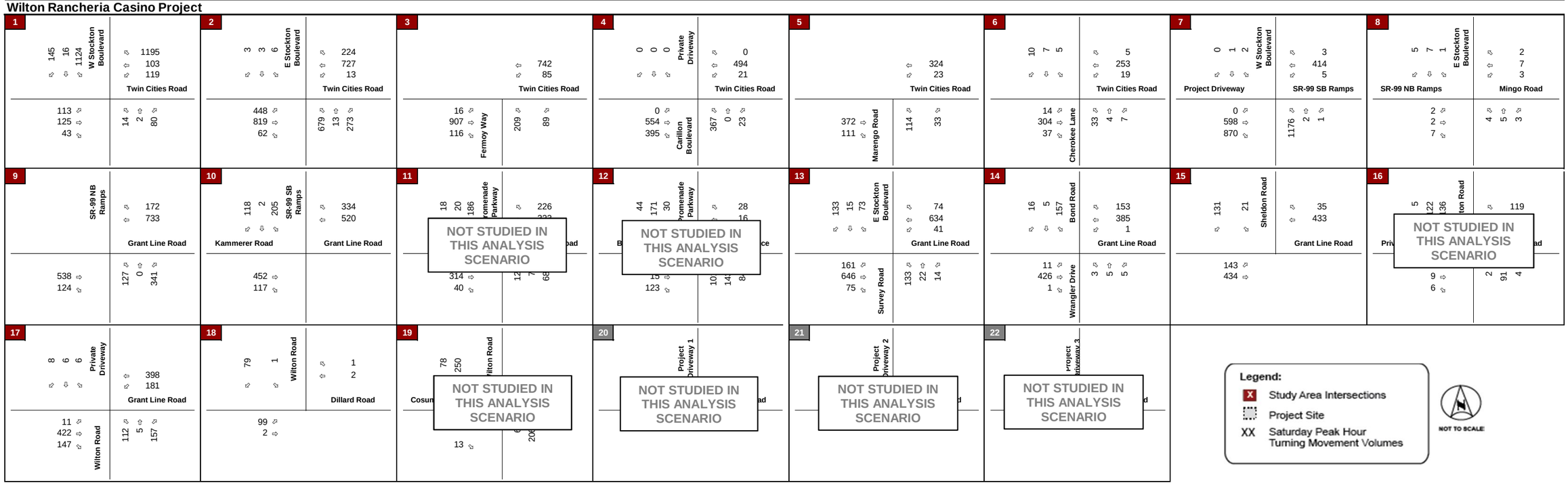
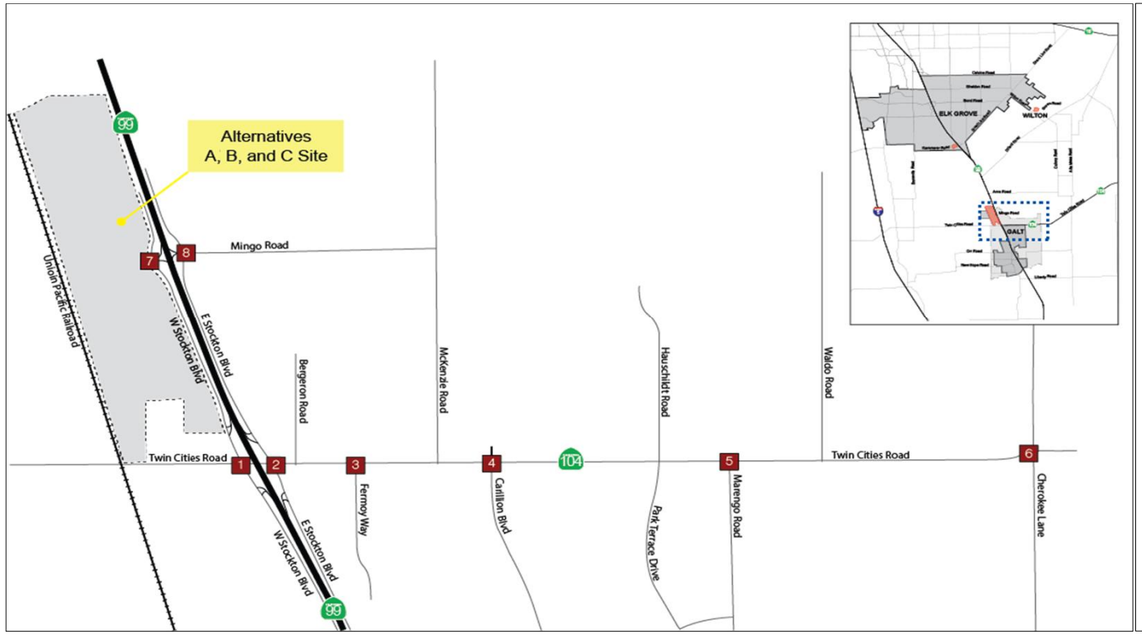
FIGURE 37

NEAR-TERM PLUS PROJECT ALTERNATIVE C WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

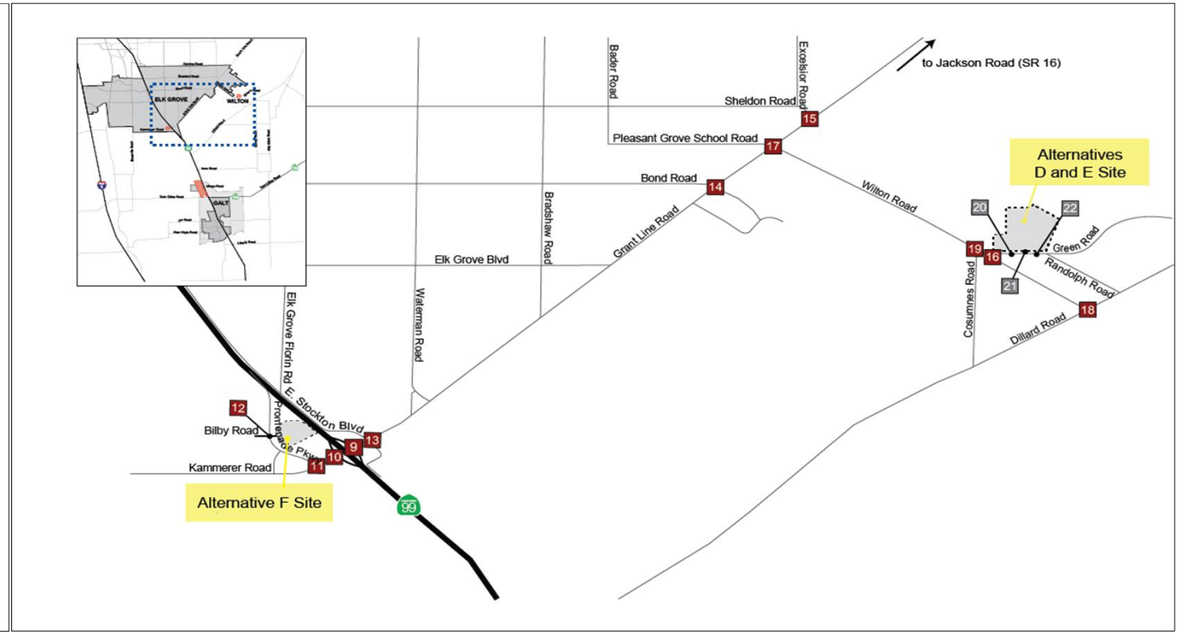


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FIGURE 38

NEAR-TERM PLUS PROJECT ALTERNATIVE C SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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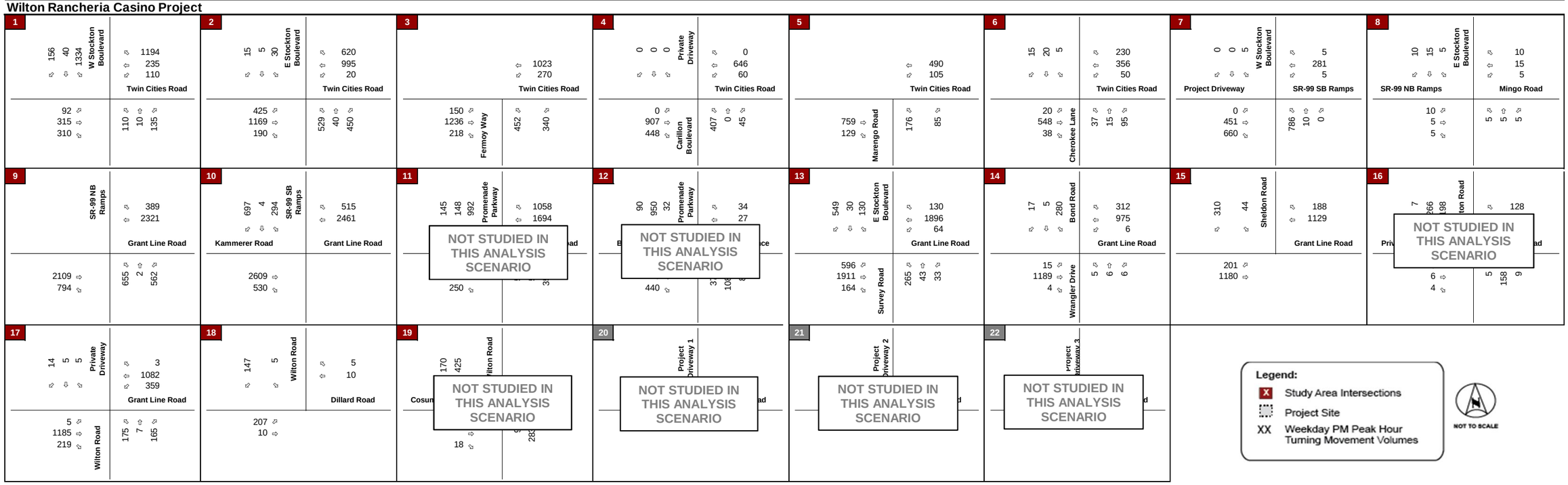
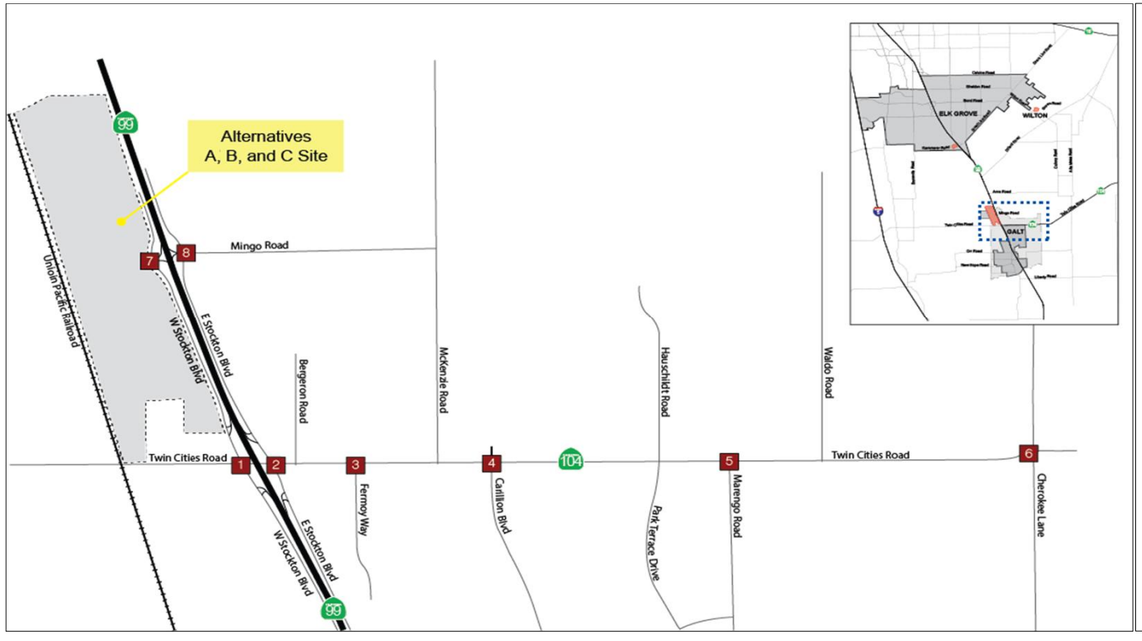
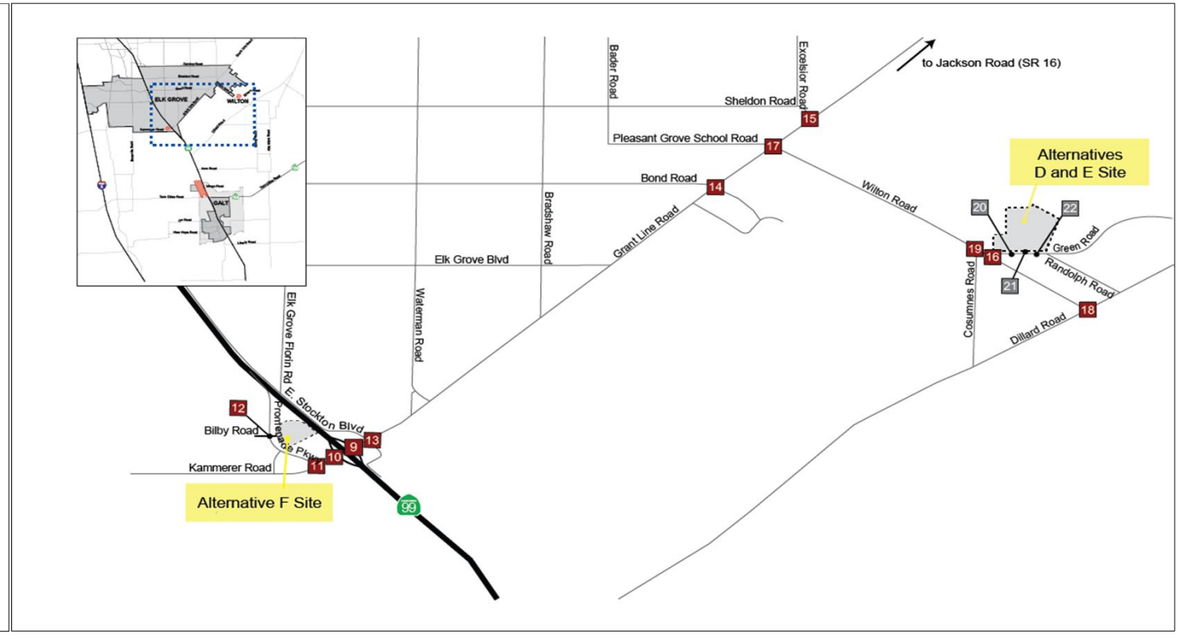
Wilton Rancheria Casino Project



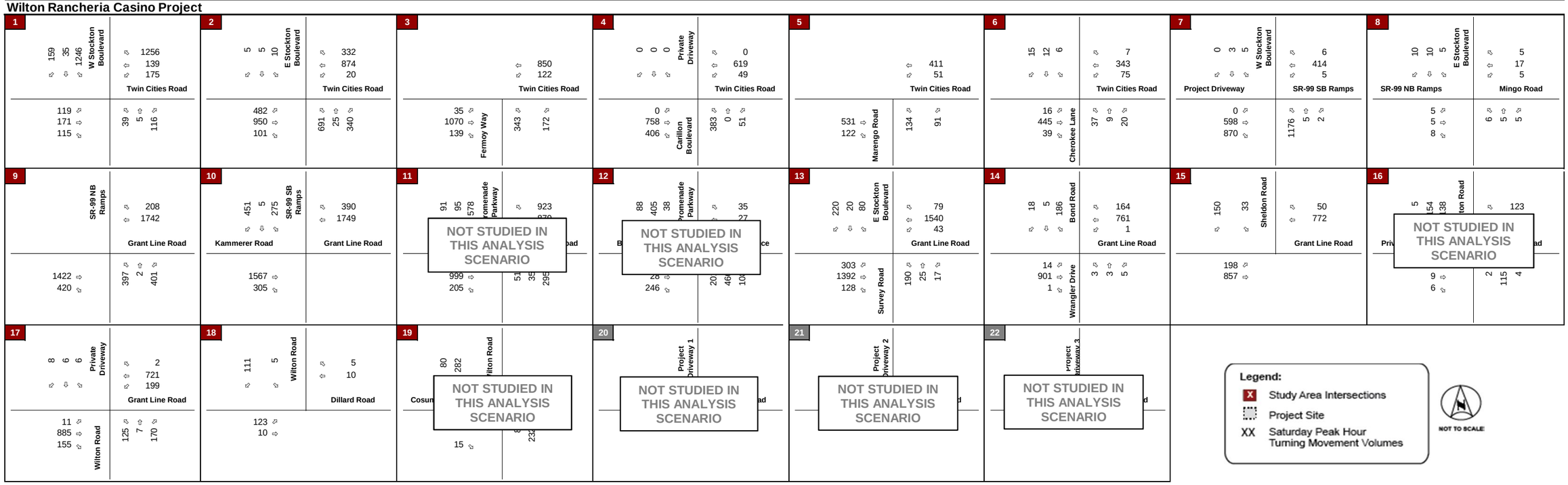
Vicinity Map (Intersections #1-8)



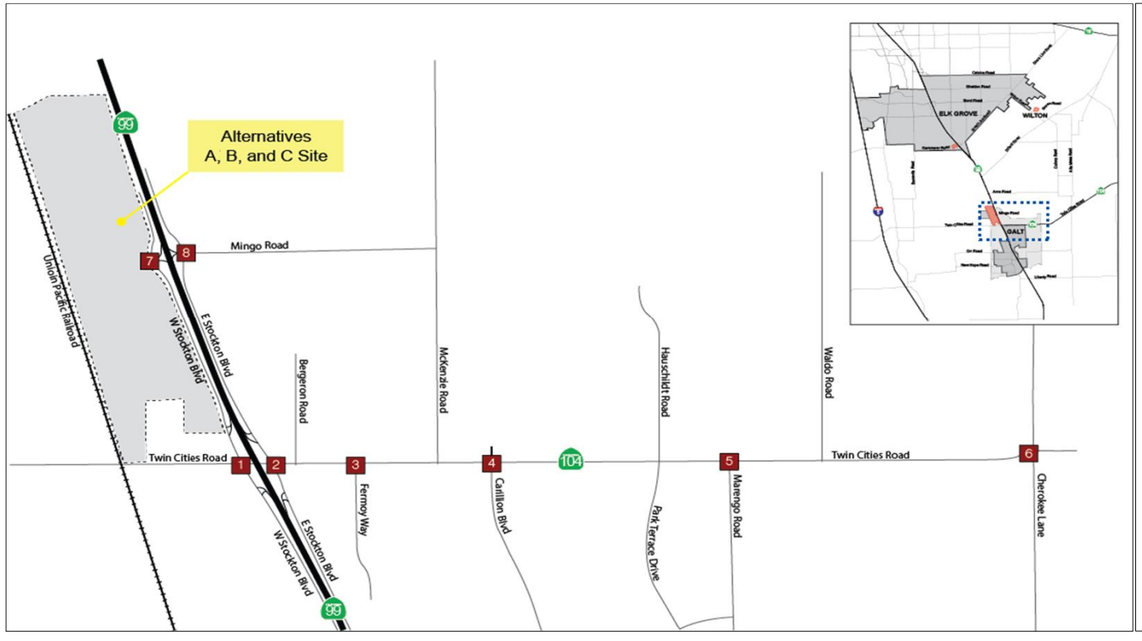
Vicinity Map (Intersections #9-22)



Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

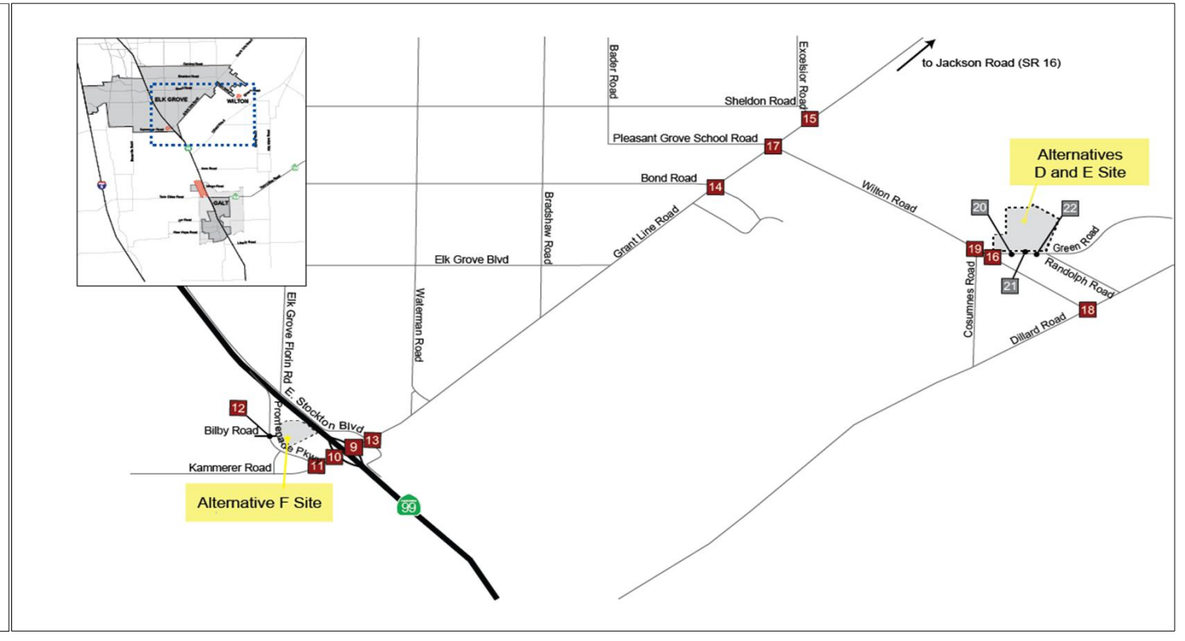


FIGURE 40

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE C SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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Table 44 – Alternative C Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	27.7	A	7.6	**F**	**193.0**	**F**	**153.6**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	D	29.3	A	8.0	**F**	**238.7**	**F**	**199.9**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	B	16.7	B	11.5	B	18.4	B	12.2
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	12.2	A	9.6	C	21.1	B	19.1
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	B	13.5	A	9.7	C	20.8	B	13.5
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	C	16.9	B	12.6	C	22.4	C	16.5
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.7	A	8.6	**F**	**104.8**	**F**	**351.9**
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.2	A	9.1	A	9.2	A	9.1
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	10.6	A	6.8
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	A	6.3	A	6.6
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	E	55.7	C	28.2	E	55.7	C	28.2
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	C	22.9	B	19.2
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	B	19.8	B	11.4
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	D	50.9	C	23.5
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	8.0	A	7.4
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold.** Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

Table 45 – Alternative C Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**F**	**61.0**	B	12.7	**F**	**253.7**	**F**	**223.3**
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	**E**	**44.0**	B	11.6	**F**	**292.8**	**F**	**263.4**
3	Twin Cities Rd/Fermoy Way	Signal	D	-	C	29.6	B	14.4	D	35.5	B	17.2
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	B	14.5	A	9.6	C	21.2	B	16.9
5	Twin Cities Rd/Marengo Rd	Signal	D	-	B	10.4	A	7.9	B	12.7	A	8.9
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	D	26.6	C	21.1	D	34.0	D	27.8
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	Signal[5]	D	WB	A	8.8	A	8.8	**F**	**107.2**	**F**	**354.8**
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	A	9.5	A	9.3	A	9.5	A	9.3
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	B	16.6	B	12.4
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	B	18.3	B	14.5
11	Promenade Parkway/Kammerer Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
12	Promenade Parkway/Bilby Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**117.6**	D	45.4
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	C	24.4	B	18.6
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	14.4	B	11.3
16	Wilton Rd/Green Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	D	45.3	C	21.7
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	A	8.5	A	7.7
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
20	Green Road/Project Driveway 1	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	-	-	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents worst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target shown in **Bold**. Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through
5. Intersection anticipated to be signalized with addition of project and connection to project access driveway. "With Project" delay represents average intersection delay.

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road
- West Stockton Boulevard/SR 99 SB Ramps (at Mingo Road)

Cumulative (2035) Results

- West Stockton Boulevard/Twin Cities Road
- East Stockton Boulevard/Twin Cities Road
- West Stockton Boulevard/SR 99 SB Ramps (at Mingo Road)

Because the current SR 99/Mingo Road interchange configuration does not facilitate access between the east and west sides of the freeway, project traffic traveling to/from northbound SR 99 must use the Twin Cities interchange and West Stockton Boulevard to access the project site. This adds a considerable amount of additional traffic to the Twin Cities roundabouts, which contributes to the congested conditions at these locations.

It should be noted that the intersection of Grant Line Road/East Stockton Boulevard is projected to operate at unacceptable LOS E for Near-Term conditions and LOS F for Cumulative conditions without the project and will continue to operate at LOS E or LOS F with the addition of the project. However, the project does not increase the average control delay at the intersection by five (5) seconds or more; thus, no project-related impact is identified at this location based on the established significance criteria.

7.8 Alternative C LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 46** summarizes the near-term (2018) roadway segment levels of service. **Table 47** summarizes the cumulative (2035) roadway segment levels of service.

Table 46 – Alternative C Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**29,038**	**F**	+0.325	**20,859**	**F**	+0.426
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	8,675	A		6,133	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	14,021	C		**18,374**	**F**	+1.013
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	9,077	A		4,915	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,596	A		4,113	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	6,871	A		3,721	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	11,214	D		9,670	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	11,577	A		9,983	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	25,209	A		19,393	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	24,352	B		18,738	A	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**22,261**	**F**	+0.011	**17,138**	**E**	+0.015
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**18,402**	**F**	+0.011	14,307	C	
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**19,857**	**F**	+0.011	15,026	D	
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**18,782**	**F**	+0.011	14,219	C	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	4,741	C		3,633	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	9,965	D		8,321	D	
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	3,791	C		3,292	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	4,129	C		3,754	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,089	B		2,077	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 47 – Alternative C Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	30,908	D		21,923	B	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	11,110	A		7,518	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	14,028	C		**18,385**	**F**	+1.013
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	30,240	A		16,374	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,460	B		12,162	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,659	A		10,103	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	33,258	B		28,678	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	35,164	B		30,322	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	46,883	D		35,973	B	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	42,382	C		32,530	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	31,409	A		24,136	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	25,795	C		20,011	A	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	26,768	C		20,217	A	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	21,122	A		15,976	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	5,441	C		4,170	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	9,882	D		8,252	D	
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	3,708	C		3,219	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	4,295	C		3,905	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,172	B		2,159	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

As shown in the tables, project traffic will add traffic to several roadway segments and result in levels of service that exceed the established impact thresholds at the following locations:

Near-Term (2018) Results

- Twin Cities Road (SR 104) – Fermoy Way to Marengo Road
- West Stockton Boulevard – SR 99 SB Off-Ramp (north of Twin Cities) to SR 99 SB Ramps (at Mingo)

Cumulative (2035) Results

- West Stockton Boulevard/SR 99 SB Ramps (at Mingo Road)

It should be noted that there are additional locations where the project adds additional traffic to roadway segments that are projected to operate at unacceptable levels of service without the project; however, the V/C ratio increases by less than 0.05; thus, no project impact is identified.

7.9 Alternative C LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project. As with the no project scenarios, freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 48** and **Table 49**, respectively.

Table 48 – Alternative C Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	34.2	15.5%	C	23.0	15.0%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	30.7	16.3%	C	23.2	16.0%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	30.0	9.5%	C	22.1	8.9%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	30.1	9.1%	C	22.2	9.4%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	30.5	9.7%	C	22.4	9.3%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	D	26.5	9.1%	C	23.6	8.8%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	23.9	9.1%	C	22.0	9.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.2	5.0%	C	20.8	5.6%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	31.5	15.8%	C	25.4	14.9%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	33.3	16.4%	C	24.7	15.4%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	**E**	**37.1**	18.5%	D	26.5	16.7%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	D	34.3	9.6%	C	24.7	8.3%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	28.5	8.8%	C	22.8	8.6%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	D	27.4	8.7%	C	23.5	8.8%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	D	26.6	8.6%	C	22.9	8.5%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	23.0	8.5%	C	21.8	9.0%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	24.9	6.0%	B	15.5	8.4%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 49 – Alternative C Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**37.9**	**E**	11%	30.4	D	13.9%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	31.9	D	11.5%	26.2	C	14.9%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	33.5	D	10.9%	27.3	C	14.2%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	30.2	D	0.0%	23.6	C	0.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	31.1	D	5.8%	24.7	C	7.4%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	34.8	D	6.4%	27.3	C	8.3%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**37.4**	**E**	8.7%	30.6	D	10.9%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	31.9	D	7.0%	24.7	C	9.3%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	33.6	D	6.0%	**38.8**	**E**	54.6%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	20.8	C	10.1%	19.2	B	11.0%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	C	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	24.5	C	7.9%	21.3	C	8.7%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 50** and **Table 51**, respectively.

Table 50 – Alternative C Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**F**	**46.4**	18.7%	**E**	**39.4**	16.9%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**F**	**46.8**	20.3%	**E**	**39.8**	18.5%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**50.7**	12.7%	**E**	**38.9**	10.5%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**51.0**	12.8%	**E**	**39.2**	10.7%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**52.0**	12.8%	**E**	**42.5**	11.3%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**41.9**	10.8%	**E**	**40.2**	10.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**41.2**	11.1%	**E**	**37.0**	10.4%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**38.1**	6.1%	**E**	**36.6**	6.1%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**49.5**	0.0%	**E**	**42.9**	0.0%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**64.5**	25.7%	**F**	**45.4**	19.5%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**69.1**	28.9%	**F**	**52.8**	23.4%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**61.3**	13.9%	**F**	**47.9**	11.7%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	30.0	9.1%	D	26.9	8.9%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	31.6	9.0%	D	28.0	8.5%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	D	26.9	8.5%	C	25.0	8.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	D	26.3	8.7%	C	25.4	9.0%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	28.5	5.9%	C	23.1	6.0%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 51 – Alternative C Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**48.4**	**F**	13%	**44.5**	**F**	13.8%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**41.5**	**F**	12.8%	**38.5**	**E**	13.6%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**44.2**	**F**	12.5%	**39.3**	**F**	13.6%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**38.8**	**E**	4.0%	**35.8**	**E**	4.4%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**40.3**	**F**	8.0%	**36.3**	**E**	9.0%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**45.3**	**F**	4.9%	**41.4**	**F**	5.3%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**46.9**	**F**	6.8%	**43.3**	**F**	7.4%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**42.4**	**F**	5.2%	**37.5**	**E**	5.6%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**43.1**	**F**	4.6%	**38.6**	**E**	4.6%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	31.8	D	8.2%	29.2	D	3.9%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	D	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	24.5	C	7.9%	23.9	C	12.2%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent

(5%) with the addition of the project. Significant congestion is expected with and without the project.

7.10 Alternative C Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections and roadways with levels of service below established thresholds were investigated to determine the role of the Alternative C traffic in the projected operating conditions at those locations. The evaluation disclosed that the following improvements as shown on **Table 52** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 52 – Alternative C Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	• See mitigation for Intersection #1		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 52 – Alternative C Summary of Mitigations (cont.)

Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity • Queuing
2	E Stockton Blvd/Twin Cities Rd	• See mitigation for Intersection #1		
3	Twin Cities Rd/Fermoy Way	No mitigation necessary	-	-
4	Twin Cities Rd/Carillon Blvd	No mitigation necessary	-	-
5	Twin Cities Rd/Marengo Rd	No mitigation necessary	-	-
6	Twin Cities Rd/Cherokee Ln	No mitigation necessary	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	• See mitigation for Intersection #1		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	No mitigation necessary	-	-
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
12	Promenade Parkway/Bilby Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 52 – Alternative C Summary of Mitigations (cont.)
Near-Term Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	• Widen Twin Cities Rd (SR-104) to four lanes from Fermoy Way to Marengo Rd.	Yes	• Capacity
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	No mitigation necessary	-	-
	Bradshaw Rd to Wilton Rd	No mitigation necessary	-	-
	Wilton Rd to Calvine Rd	No mitigation necessary	-	-
	Calvine Rd to Jackson Rd	No mitigation necessary	-	-
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	No mitigation necessary	-	-
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	No mitigation necessary	-	-
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

Table 52 – Alternative C Summary of Mitigations (cont.)
Cumulative Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	• Reconstruct SR 99/Mingo Rd interchange with new four-lane bridge over SR 99 to provide access to/from NB and SB SR 99 from both sides of the freeway	Yes	• Capacity
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	No mitigation necessary	-	-
	Bradshaw Rd to Wilton Rd	No mitigation necessary	-	-
	Wilton Rd to Calvine Rd	No mitigation necessary	-	-
	Calvine Rd to Jackson Rd	No mitigation necessary	-	-
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	No mitigation necessary	-	-
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	No mitigation necessary	-	-
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

The key component of the Alternative C mitigations is the proposed reconstruction of the Mingo Road/SR 99 interchange to provide full access between the project site and NB and SB SR 99. This improvement removes a substantial amount of project trips that would otherwise have to navigate south to the NB SR 99 ramps near Twin Cities, which would further exacerbate projected future congestion at the Twin Cities roundabouts. A preliminary design concept for the reconstructed Mingo Road interchange has been developed for the purposes of this study and is shown in **Figure 23** and is discussed in further detail in the Alternative A mitigation discussion.

To mitigate project's near-term impacts to the roadway segment of Twin Cities Road from Fermoy Way to Marengo Road, the project would be responsible of construction of or payment of the City of Galt's Transportation Capital Improvement Program (TCIP) fee towards the costs to construct the planned widening of Twin Cities Road to four lanes east to Marengo Road. The City of Galt TCIP includes a planned project to ultimately widen Twin Cities Road to four lanes from SR 99 east to Marengo and a second eastbound travel lane will be constructed from Marengo to Cherokee as part of the

Eastview development project; however, these improvements are not anticipated to be completed prior to 2018.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities and Mingo interchanges, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 20% based on standard Caltrans methodology for calculating equitable mitigation measures

Table 53 and **Table 54** summarize the expected intersection levels of service with the proposed mitigation measures.

Table 53 – Alternative C Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	D	27.7	A	7.6	**F**	**193.0**	**F**	**153.6**	**E**	**36.4**	A	9.1
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	D	29.3	A	8.0	**F**	**238.7**	**F**	**199.9**	**F**	**84.0**	D	25.3
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	B	16.7	B	11.5	B	18.4	B	12.2	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	12.2	A	9.6	C	21.1	B	19.1	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	13.5	A	9.7	C	20.8	B	13.5	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	C	16.9	B	12.6	C	22.4	C	16.5	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.7	A	8.6	**F**	**104.8**	**F**	**351.9**	B	10.1	C	21.3
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.2	A	9.1	A	9.2	A	9.1	B	17.2	C	24.2
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	10.6	A	6.8				
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	A	6.3	A	6.6	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**55.7**	C	28.2	**-**	**-**	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	C	22.9	B	19.2	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	B	19.8	B	11.4	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	D	50.9	C	23.5	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	8.0	A	7.4	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													B	13.4	D	25.2

Notes:

1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.

2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

Table 54 – Alternative C Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	B	10.5	A	6.9	**F**	**61.0**	B	12.7	**F**	**253.7**	**F**	**223.3**	**F**	**74.3**	**F**	**72.9**
2	E Stockton Blvd/Twin Cities Rd	D	B	13.8	A	7.4	E	44.0	B	11.6	**F**	**292.8**	**F**	**263.4**	**F**	**126.4**	**F**	**126.4**
3	Twin Cities Rd/Fermoy Way	D	B	12.3	A	9.7	C	29.6	B	14.4	D	35.5	B	17.2	-	-	-	-
4	Twin Cities Rd/Carillon Blvd	D	B	11.6	A	8.7	B	14.5	A	9.6	C	21.2	B	16.9	-	-	-	-
5	Twin Cities Rd/Marengo Rd	D	A	9.8	A	9.0	B	10.4	A	7.9	B	12.7	A	8.9	-	-	-	-
6	Twin Cities Rd/Cherokee Ln	D	B	12.6	B	11.9	D	26.6	C	21.1	D	34.0	D	27.8	-	-	-	-
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)[1]	D	A	8.6	A	8.7	A	8.8	A	8.8	F	107.2	**F**	**354.8**	B	10.1	C	21.3
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)[2]	D	A	9.1	A	9.0	A	9.5	A	9.3	A	9.5	A	9.3	B	17.2	C	24.2
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	B	16.6	B	12.4	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	B	18.3	B	14.5	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
12	Promenade Parkway/Bilby Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**117.6**	D	45.4	**-**	**-**	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	C	24.4	B	18.6	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	14.4	B	11.3	-	-	-	-
16	Wilton Rd/Green Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	D	45.3	C	21.7	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	A	8.5	A	7.7	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
23	E Stockton Blvd (South Leg)/Mingo Road[2]	D													B	13.4	D	25.2

Notes:

1. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, West Stockton Boulevard will be closed south of Mingo Road and will no longer connect with the Mingo Road/SR-99 SB Ramps intersection.

2. With proposed mitigation improvements to reconstruct the Mingo Road/SR-99 Interchange, the south leg of East Stockton Boulevard will be realigned to the east, forming a new SSSC intersection with Mingo Road. This new intersection is listed as Intersection #23 in the table above. The north leg of East Stockton Boulevard will form a new signalized intersection at Mingo Road with the SR-99 NB ramps (listed as Intersection #8 in the table above).

As shown in the tables, the Twin Cities Roundabouts at W. Stockton and E. Stockton Boulevard are still anticipated to operate at unacceptable levels of service with implementation of the recommended mitigation measures. With modifications to the SR-99/Mingo Road interchange, site ingress/egress is improved and project traffic is no longer required to divert to the Twin Cities interchange to access northbound SR- 99. While the average delay at these locations would be reduced by 70+ seconds at each of the intersections during the worst-case peak hour period with reconstruction of the Mingo Road interchange, these roundabouts would continue to experience large delays.

As mentioned previously, the City of Galt previously identified long-term plans for full reconstruction of the Twin Cities Road/SR 99 interchange, which would improve traffic operations at these two intersections. Initial concept plans for this project identified widening of the Twin Cities Road overcrossing, realignment of East Stockton Boulevard and West Stockton Boulevard farther east and west, respectively, addition or direct ramp terminals joining Twin Cities Road and elimination of the existing hook ramps. Improvements of this magnitude are anticipated to require significant costs and right-of-way acquisition. The City is not currently collecting any funds for this project; thus this project is unlikely to be constructed in the foreseeable future. For this reason, the resulting impacts to the W. Stockton and E. Stockton roundabout intersections will remain significant.

With reconstruction of the Mingo interchange and closure of West Stockton Boulevard between Mingo Road and the SR-99 SB ramps north of Twin Cities, the project impact to West Stockton would be eliminated. The removal of West Stockton Boulevard is anticipated to shift approximately 10,000 new daily trips to East Stockton Boulevard between Mingo Road and Twin Cities Road, resulting in a peak average daily traffic volume of a little under 11,000 vehicles per day. There is sufficient capacity projected for this segment in the near-term and year 2035 to accommodate this traffic demand while maintaining an acceptable level of service.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Project Alternative C is anticipated to add up to 10,000 vehicle trips per day to East Stockton Boulevard between Mingo Road and Twin Cities Road, where existing daily traffic volumes are very low (under 200 vehicles per day). Per County staff, the existing pavement condition index (PCI) for this roadway segment is 20, which represents very poor/deteriorated condition. For the portion of East Stockton Boulevard where roadway realignment is proposed, the project should reconstruct the roadway to provide a 60-foot right-of-way with a 12.5-foot public utility easement on the west side and a 20-foot public utility public facilities easement on the east side of the roadway. South of the portion of the roadway where realignment is proposed to Twin Cities Road, the project

should be responsible for reconstructing East Stockton Boulevard to the County's Improvement Standards, where feasible within existing public right-of-way. Other than Mingo Road, which will be improved to meet County standards between the project access driveway and East Stockton Boulevard as part of the proposed interchange improvements, proposed project is anticipated to add very few new trips to other rural County roadways in the area.

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are no existing or planned sidewalks, trails or designated bicycle facilities within the vicinity of the proposed project site; thus the project would not inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site and the proposed modifications to the Mingo Road Interchange include considerations for pedestrian and bicycle facilities.

No fixed route transit service will be available at the project site; however, a retail development is not anticipated to generate the same level of new transit demand as the proposed casino project alternatives. For this reason, the existing dial-a-ride transit service that is provided for residents within the City of Galt is assumed to provide sufficient service to employees and patrons of the Alternative C retail project.

7.11 Alternative C VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative C is summarized in **Table 55**.

Table 55 – Alternative C VMT

Alternative C - Retail on the Twin Cities Site							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	66%	16.4	20,182	330,985	26,421	433,304
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	25%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	9%					

7.12 Alternative C Construction Traffic Impacts

Impacts resulting from the construction of Alternative C would be temporary in nature. Construction activity impacts would be concentrated on W. Stockton Boulevard in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.
- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays.

8. ALTERNATIVE D – CASINO RESORT AT RANCHERIA SITE

Alternative D represents the evaluation of traffic conditions with the construction of the proposed casino and hotel resort at the Historic Rancheria site. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

8.1 Proposed Site Uses

The Alternative D casino and hotel is proposed to be located as shown in **Figure 1**, the community of Wilton in unincorporated Sacramento County, just southeast of the Elk Grove City Limits.

Figure 41 shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities occupy the eastern portion of the parcel, which currently includes predominantly low-density rural areas.

The project site includes a main casino building area of approximately 376,500 square feet, which includes casino gaming area, restaurants, food court, event center, banquet facilities, lobby, back of house and other ancillary functions. In addition, the project is planned to include up to 302 hotel rooms, primarily for casino guests. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Casino Building Area – 376,500 s.f.
- Gaming Floor Area – 110,260 s.f.
- Gaming Positions – 2,104 positions.
- Convention Area – 47,000 s.f.
- Hotel Rooms – 302 Rooms

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Figure 41

Alternative D Site Plan

8.2 Site Access

Access to the Historic Rancheria Site is provided from Green Road in the community of Wilton – just east of Wilton Road and southeast of the Grant Line Road and the Elk Grove city limit. The main project access is from Green Road with three new site access driveways. For the purposes of this analysis, the site access driveways are assumed to initially have side-street stop-control and single lane ingress and egress. Project traffic accessing the site from SR 99 is anticipated to exit at Grant Line Road, continue east to Wilton Road before turning onto Green Road.

8.3 Project Trip Generation

Project trip generation for Alternative D was calculated using the assumptions and methodologies described in the Alternative A section and is shown in **Table 56**. As discussed in the Alternative A trip generation section, a lower diverted link trip reduction (3%) is assumed for casino alternatives at the Historic Rancheria site due to increased distance from SR 99.

As seen in the table, the project is expected to generate 11,716 new weekday trips, 17,007 new Saturday trips, 1,272 new trips in the weekday PM peak hour and 2,197 new trips in the Saturday PM peak hour.

Table 56 – Alternative D Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Casino	N/A	110,260	SF Gaming Floor Area	9,041	510	575	1,085	14,493	954	1,075	2,029
Diverted Link Trips (3%) [4]				(271)	(17)	(16)	(33)	(435)	(31)	(30)	(61)
Convention Area[5]	N/A	3,130	Seats	2,330	140	35	175	2,330	140	35	175
Hotel	310	302	Rooms	616	23	22	45	619	30	24	54
Net New Vehicle Trips				**11,716**	**656**	**616**	**1,272**	**17,007**	**1,093**	**1,104**	**2,197**

SF -Square Feet; GFA - Gaming Floor Area

Casino[2]

Weekday Daily	T = 82.00 x (1000's of SF GFA)	50% In	50% Out
Saturday Daily	T = 131.44 x (1000's of SF GFA)	50% In	50% Out
Weekday PM Peak Hour	T = 9.84 x (1000's of SF GFA)	47% In	53% Out
Saturday Peak Hour	T = 18.40 x (1000's of SF GFA)	47% In	53% Out

Hotel (ITE 9th Edition)[6]

Weekday Daily (ITE 310)	T = 8.17 x (Rooms)	50% In	50% Out
Saturday Daily (ITE 310)	T = 8.19 x (Rooms)	50% In	50% Out
Weekday PM Peak Hour (ITE 310)	T = 0.15 x (Rooms)	51% In	49% Out
Saturday Peak Hour (ITE 310)	T = 0.18 x (Rooms)	56% In	44% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Peak hour casino trip generation rates based on surveyed existing trip generation for existing Thunder Valley Casino. Reference: *Draft Existing Conditions Traffic Study - Thunder Valley Casino Expansion Project (Kimley-Horn and Associates, Inc., 2005).* Daily trip generation rates for casino uses were not presented in the Thunder Valley Casino Study; thus, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio documented in published traffic studies for other comprable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used for simililar projects in other tribal casino studies and with the daily customer and employee totals projected for the proposed project.

(3) The proposed casino facility includes other auxiliary/internal uses in addition to gaming area, such as restaurants, back of house, lounges, etc. However, only the casino gaming floor area (GFA) is used as the independent variable for the purposes of estimating trip generation. This is because the trip generation rates use GFA as the independent variable, and were developed based on empirical data from similar existing casino facilities, and include the trips associated with all of the casino uses (gaming areas, restaurants, lounges, back of house, etc.), excluding hotel facilities and convention space.

(4) The project site is located in general proximity to Grant Line Road and State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 3%. This adjustment is likely conservative and is consistent with Caltrans' guidance for pass-by/diverted link trip reductions (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002).. Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the casino trip generation estimates.

(5) Trip generation for the proposed 47,000 s.f. convention area was developed based on the estimated number of attendees. The maximmum number of event attendees/seats was estimated to be 3,130 people, based on an average of 15 s.f. per attendee, which is consistent with industry best practices for conference/event space planning. For the purposes of this traffic analysis, an 85th percentile event is assumed (2,661 attendees), which represents an event with attendance equal or greater than 85% of all the planned events at this location. It is assumed that when convention/meeting activities are scheduled, 25% of the 302 on-site hotel rooms would be occupied by event attendees with an average occupancy of 1.3 attendees per room; thus 98 event attendees would stay on-site, and not drive to/from an event. The remaining attendees (2,563) would drive to the site. Assuming an average auto occupancy of 2.2 people per vehicle, approximately 1,165 vehicles would attend an 85th percentile event. The majority of event trips are anticipated to occur outside of the PM peak traffic period (4:00 PM to 6:00 PM), as events typically have a start time between 7:00 PM and 8:00 PM. Based on review of other available traffic studies for tribal gaming facilities, it was assumed that 15% of event attendees would arrive during the peak hour.

(6) Trip rates for Hotel based on ITE *Trip Generation Manual*, *9th Edition.* Trip generation rate reduced by 75% to account for internal capture to/from casino.

8.4 Project Trip Distribution and Assignment

The trip distribution for Alternative D was developed using the methodologies discussed previously for Alternative A. Much of the casino project trips are expected to travel to/from SR-99 with origins/destinations in Elk Grove and Sacramento to the north/northeast, and Lodi and Stockton to the south. Based on the likely customer and employee base for the site and orientation of the regional roadway network, it was estimated that approximately 51% of the project traffic would be distributed to destinations north of the site – the vast majority of these trips using SR-99 and traveling to Wilton through the City of Elk Grove via Grant Line Road, Bond Road, and to a lesser extent, Elk Grove Boulevard, Sheldon Road and Calvine Road. A smaller proportion of the trips distributed to destinations north of the site would use Grant Line Road and Dillard Road to/from communities in eastern Sacramento County and El Dorado County. Approximately 13.5% of the project trips would be distributed to I-5 and destinations west of the site via Grant Line Road/Kammerer Road. Approximately 15% of the project trips are distributed within the City of Elk Grove. Approximately 19% of the project traffic distributed to destinations south of the site via SR-99 and connecting to Wilton via Dillard Road. **Figure 42** illustrates project traffic assigned to the study area based on the assumed trip distribution for Historic Rancheria casino project alternatives (Alternative D and E).

Figure 43 and **Figure 44** show the Alternative D project traffic assignment for near-term weekday and Saturday PM peak hour conditions. **Figure 45** and **Figure 46** show the Alternative D project traffic assignment for long-term cumulative (2035) weekday and Saturday PM peak hour conditions.

8.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative D project. **Figure 47** and **Figure 48** illustrate the combined near-term turning movement volumes at the study intersections.

8.6 Long-Term Plus Project Traffic Volumes

Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative D project. **Figure 49** and **Figure 50** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

8.7 Alternative D LOS Conditions and Impacts at Intersections

Traffic operations were evaluated for near-term conditions (2018) and long-term cumulative conditions with Alternative D (year 2035).

Results of the analysis are presented in **Table 57** and **Table 58**, respectively. Additional detail is provided in the **Appendix**.

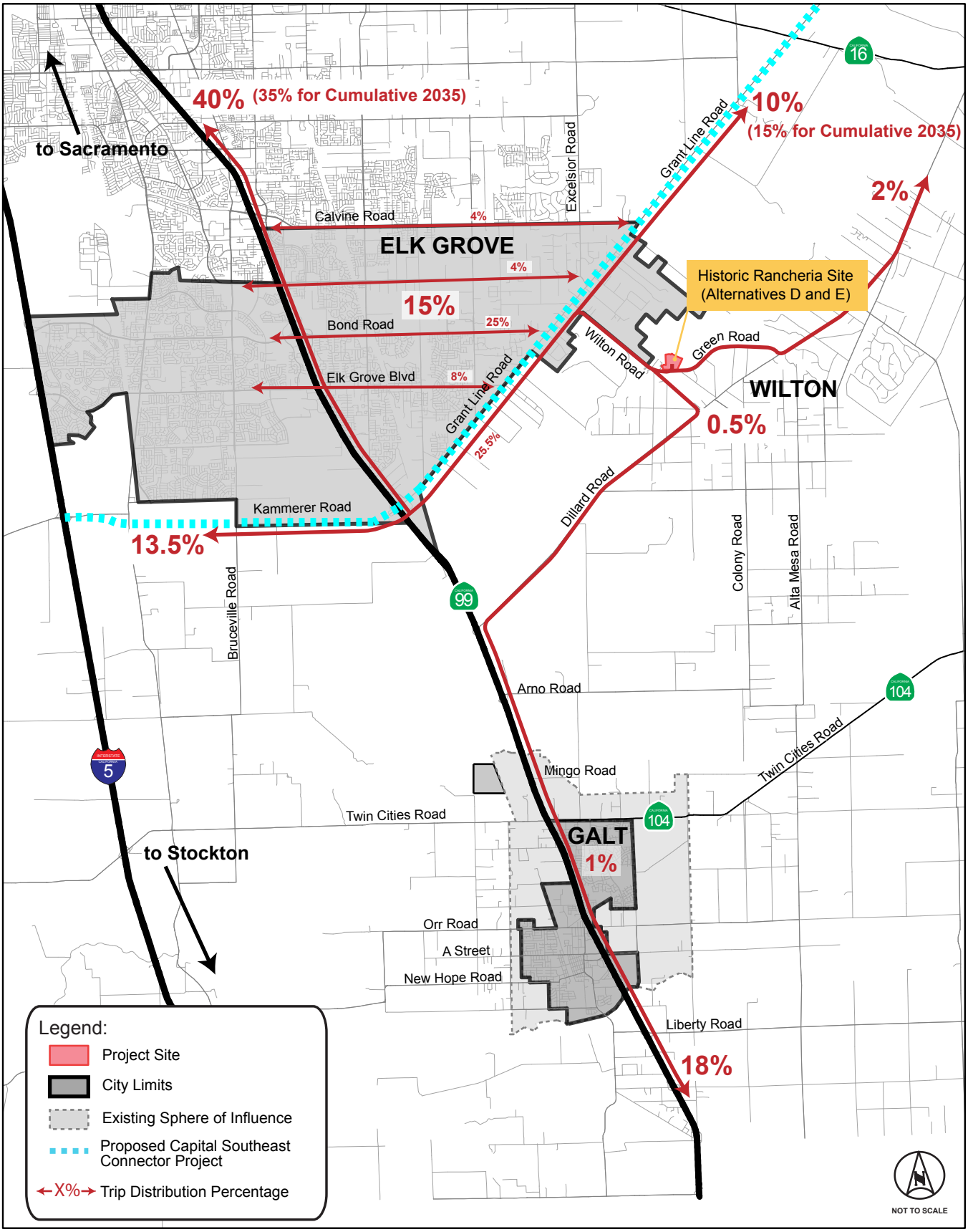

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Figure 42

Project Trip Distribution - Historic Rancheria Site (Alternatives D, E)

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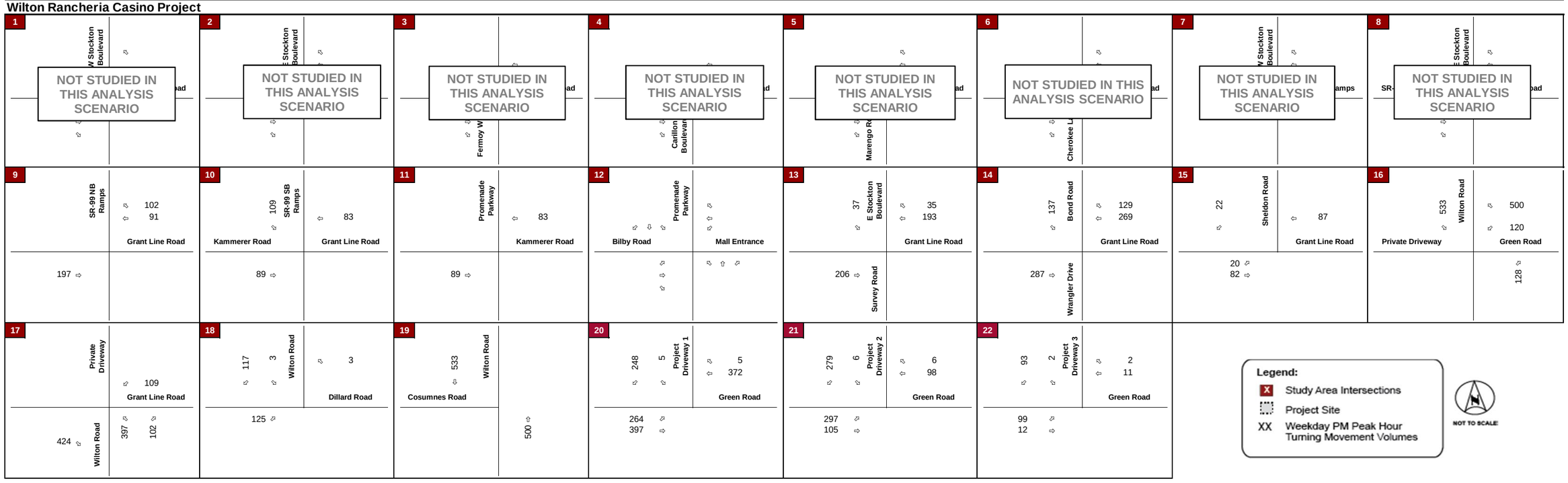
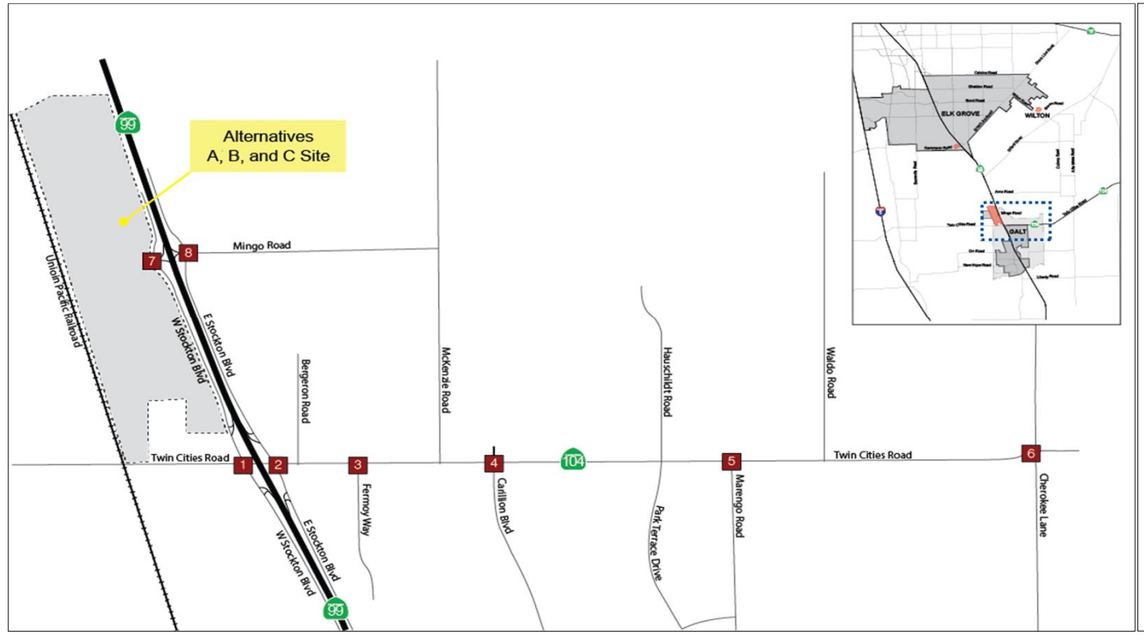
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

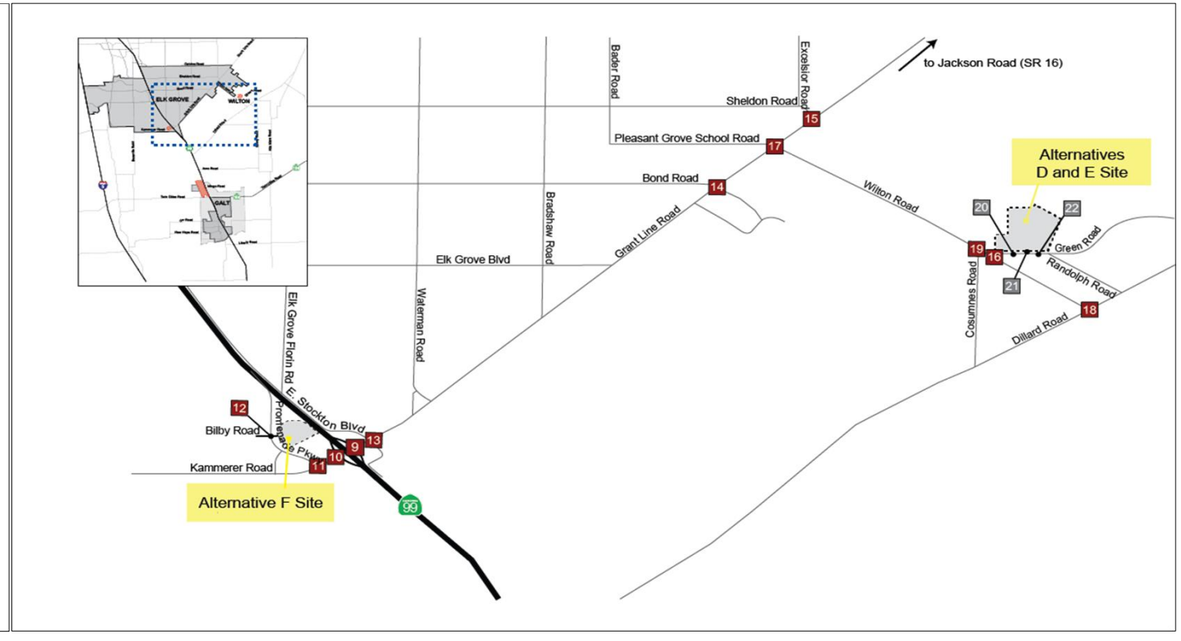


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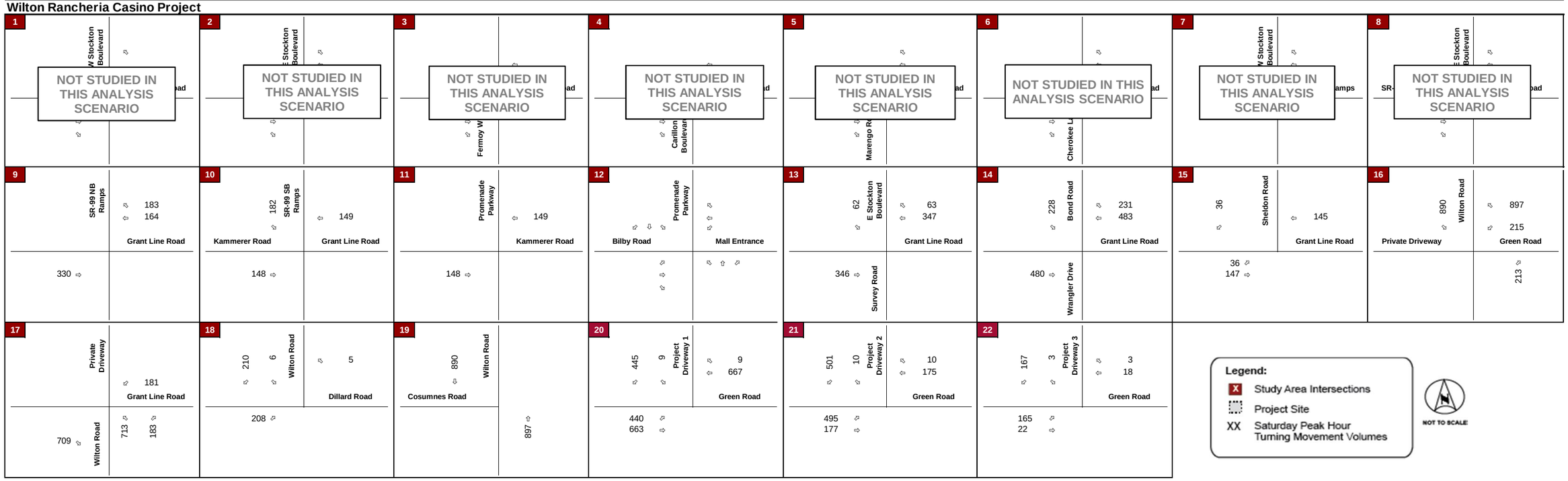
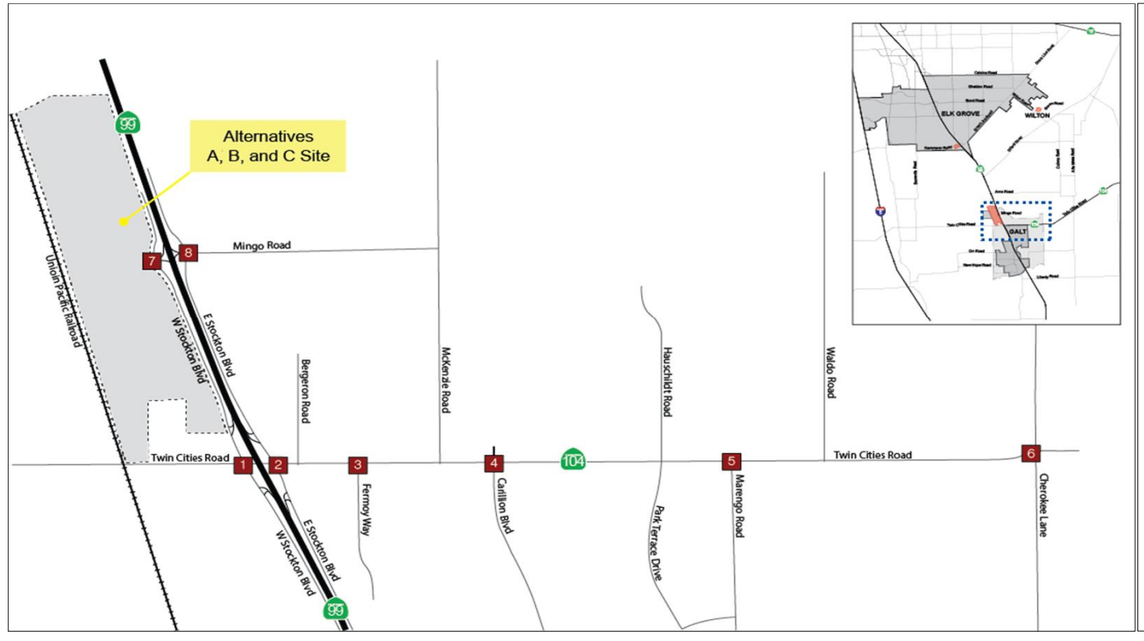
FIGURE 43

ALTERNATIVE D - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

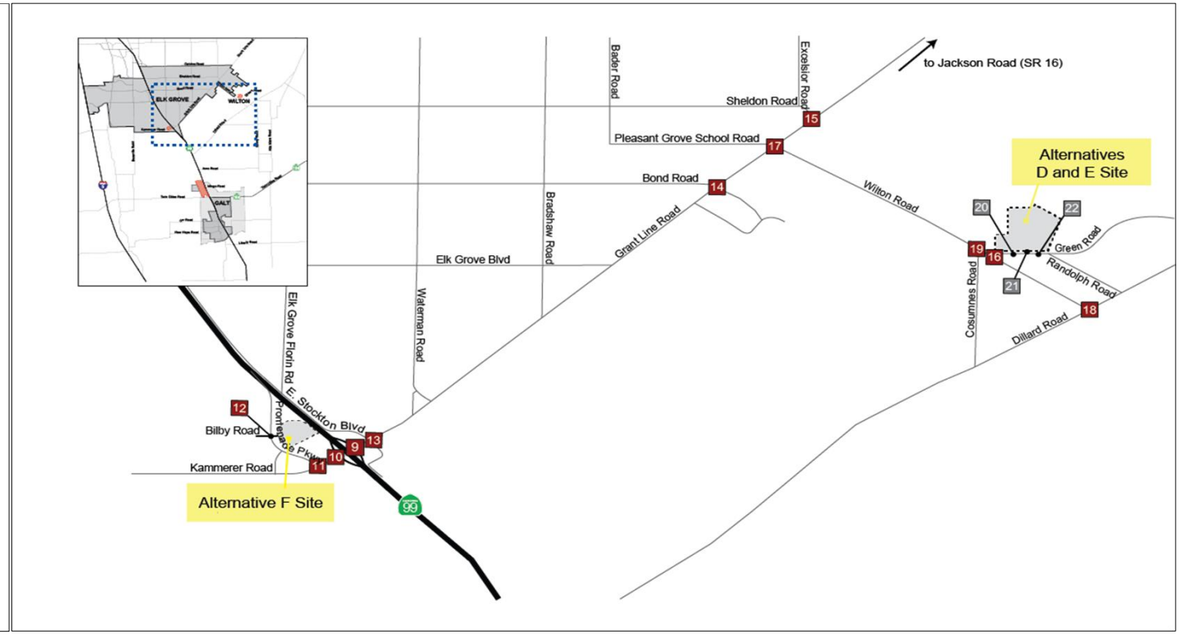
Wilton Rancheria Casino Project



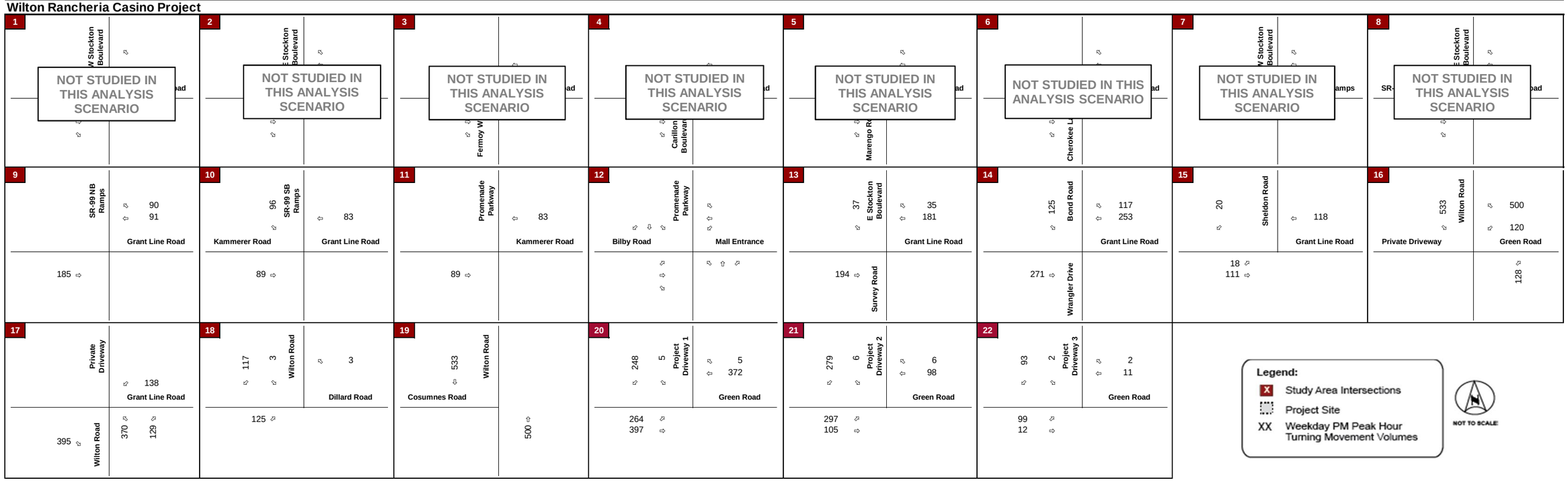
Vicinity Map (Intersections #1-8)



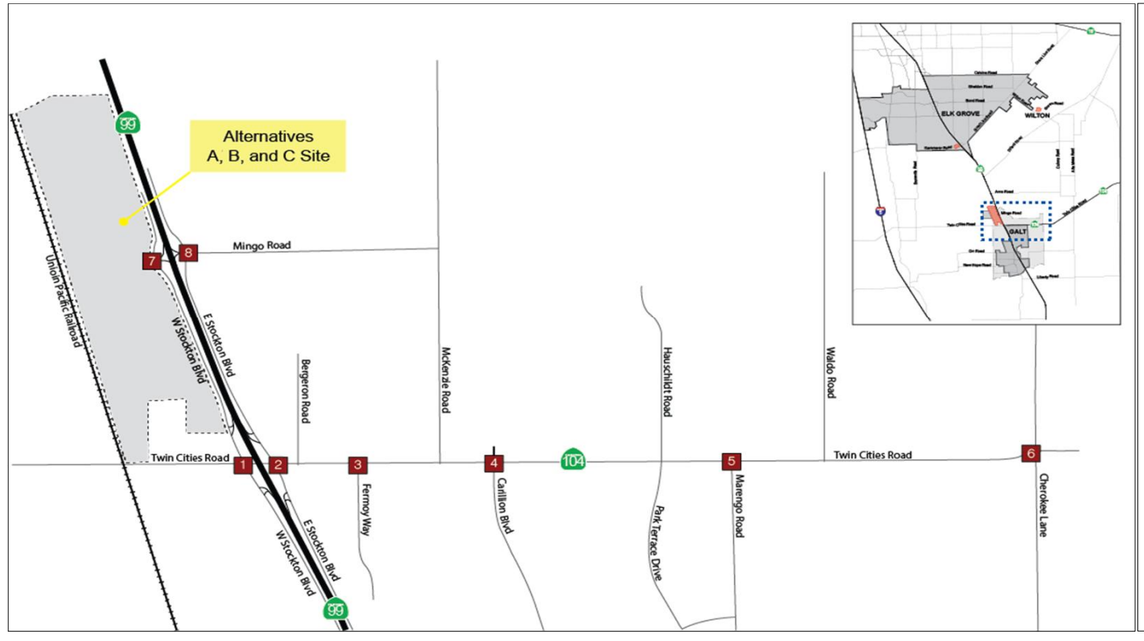
Vicinity Map (Intersections #9-22)



Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

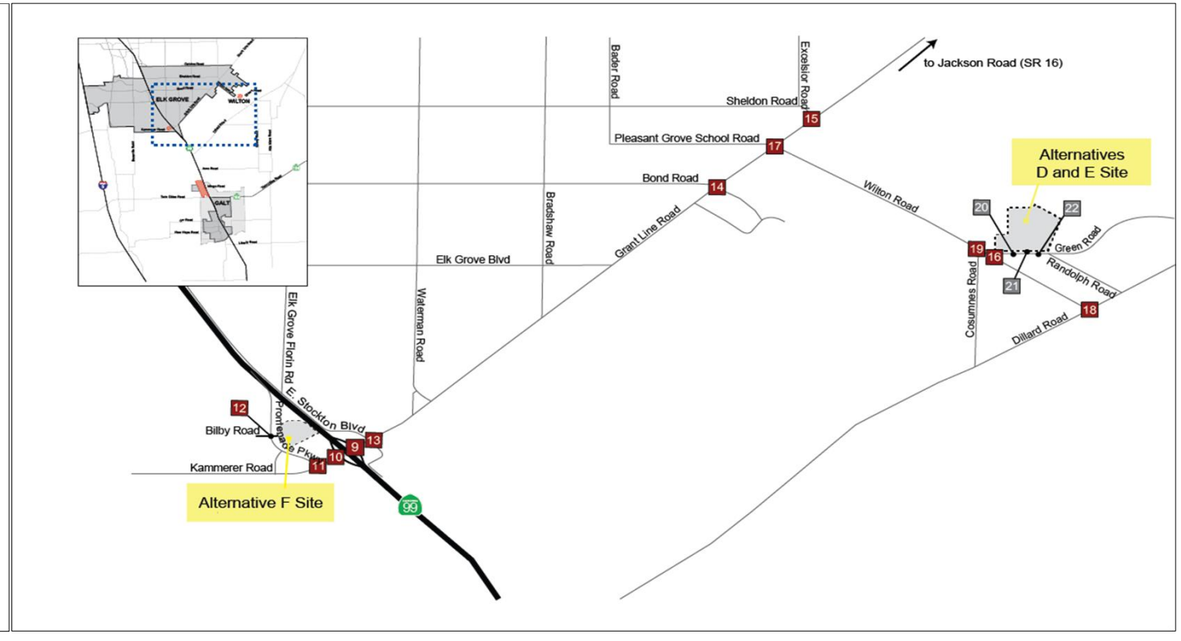


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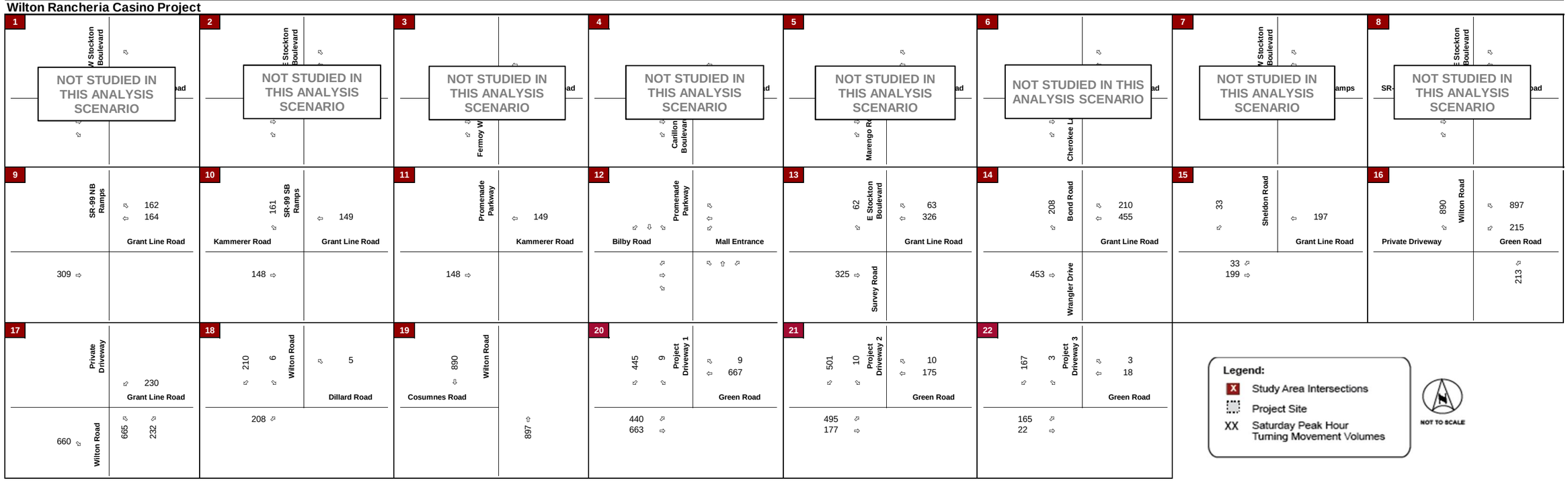
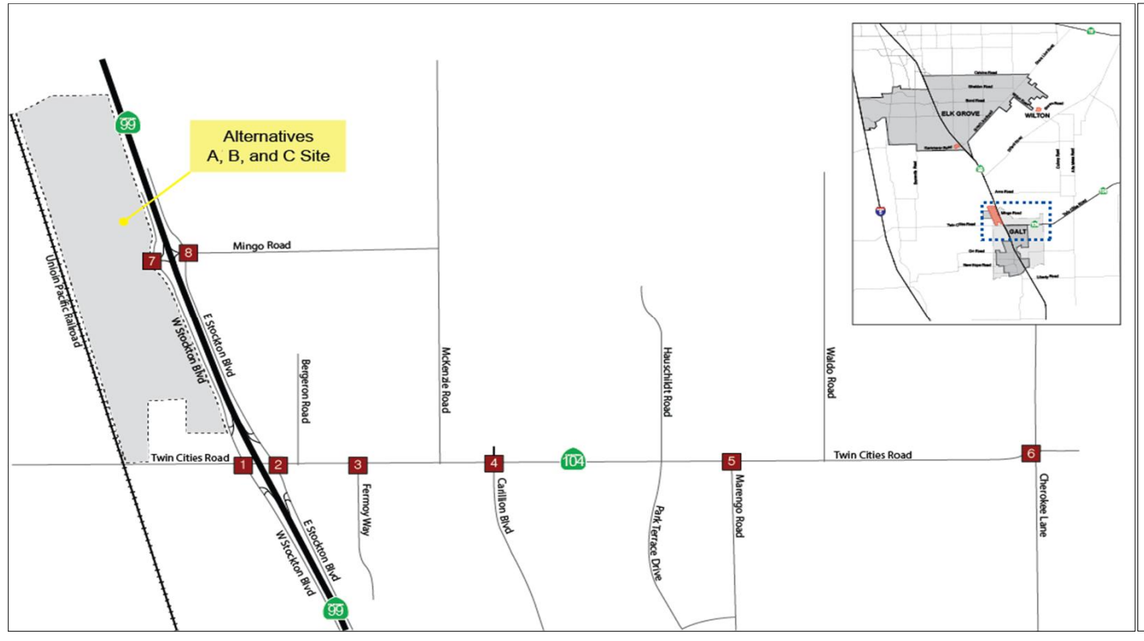
FIGURE 45

ALTERNATIVE D - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

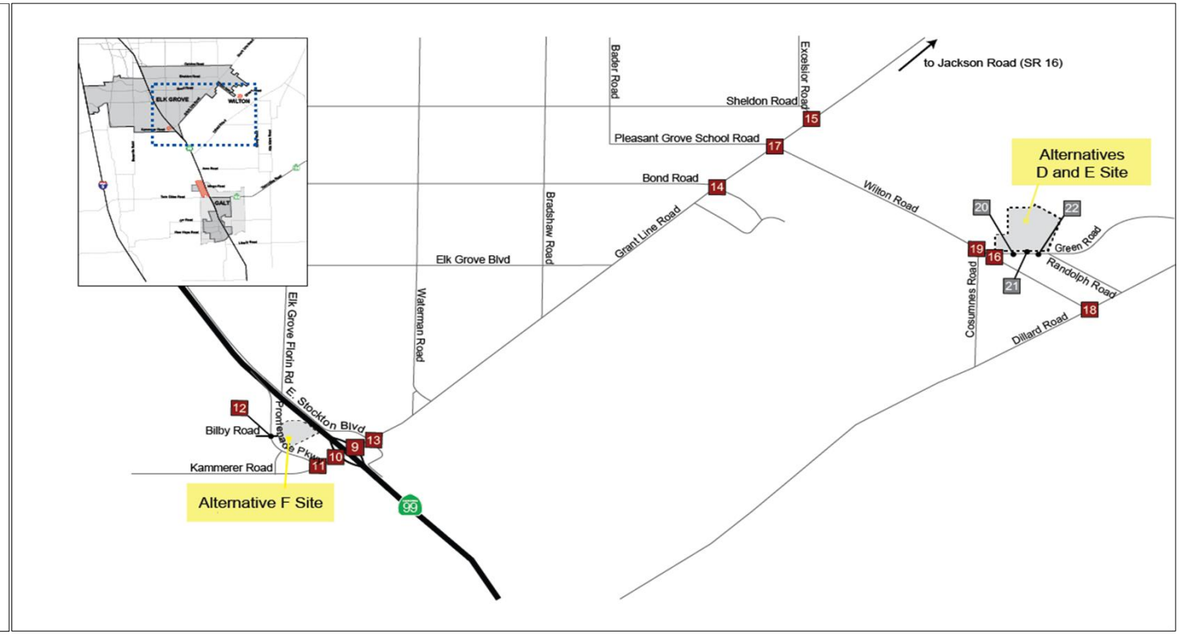


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FIGURE 46

ALTERNATIVE D - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

Wilton Rancheria Casino Project

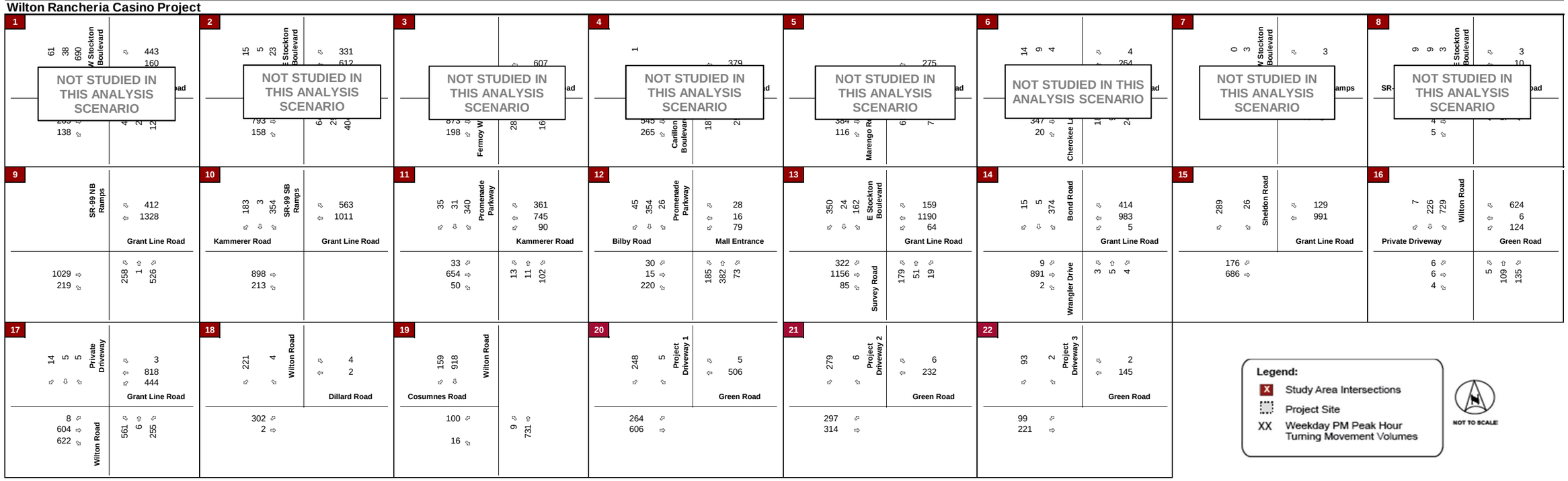

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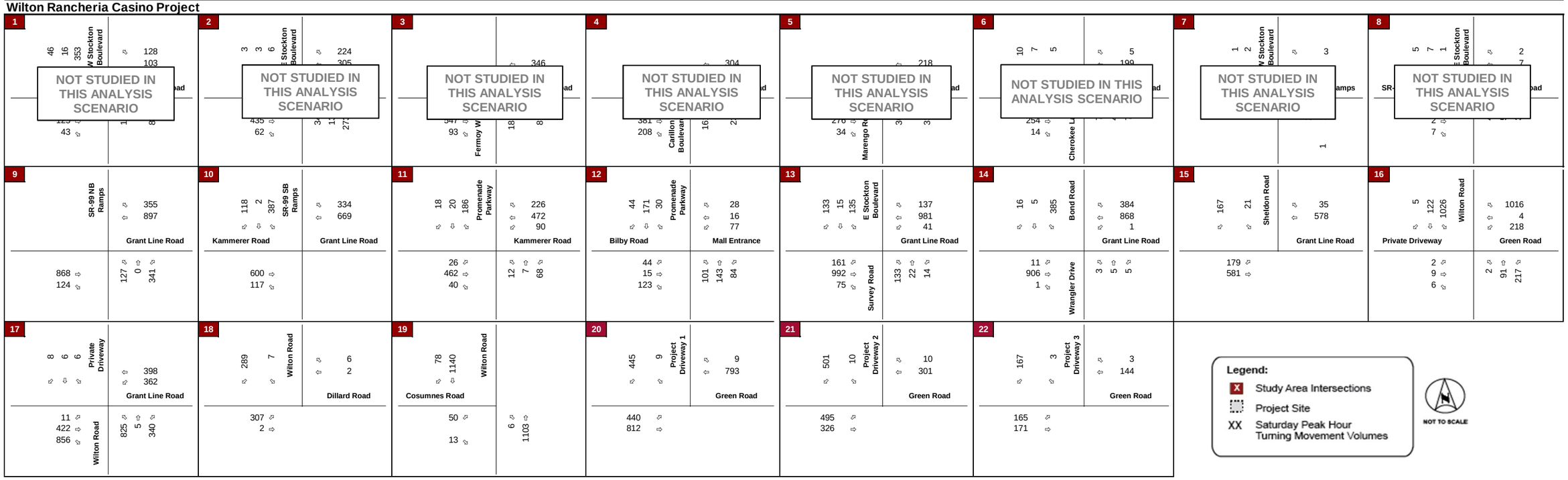
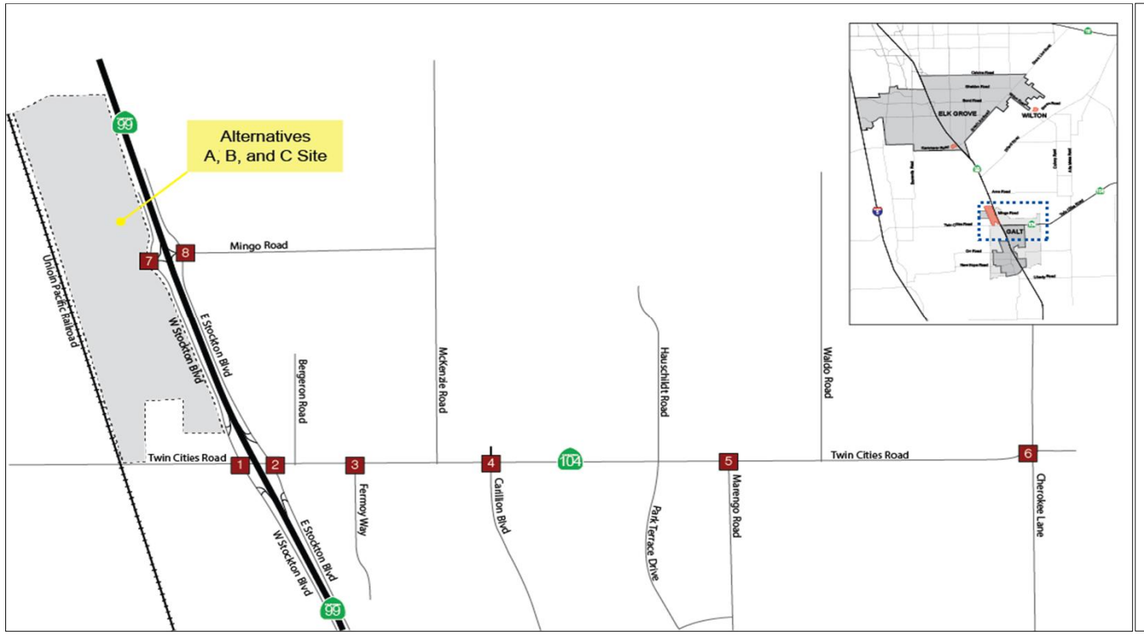
FIGURE 47

NEAR-TERM PLUS PROJECT ALTERNATIVE D WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

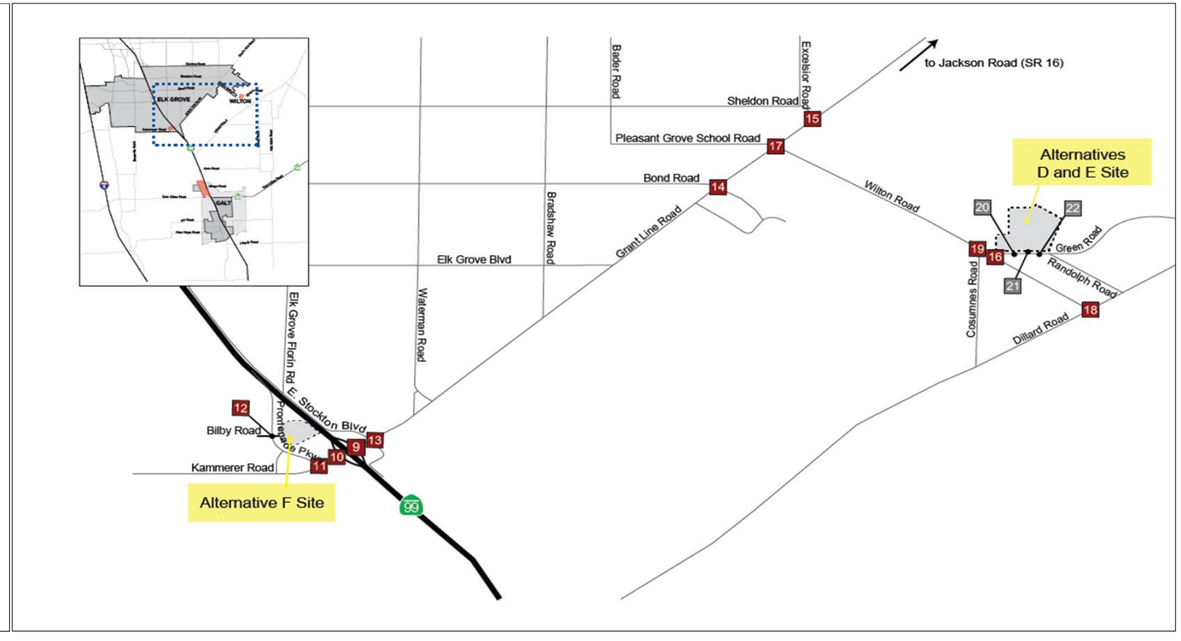
Wilton Rancheria Casino Project



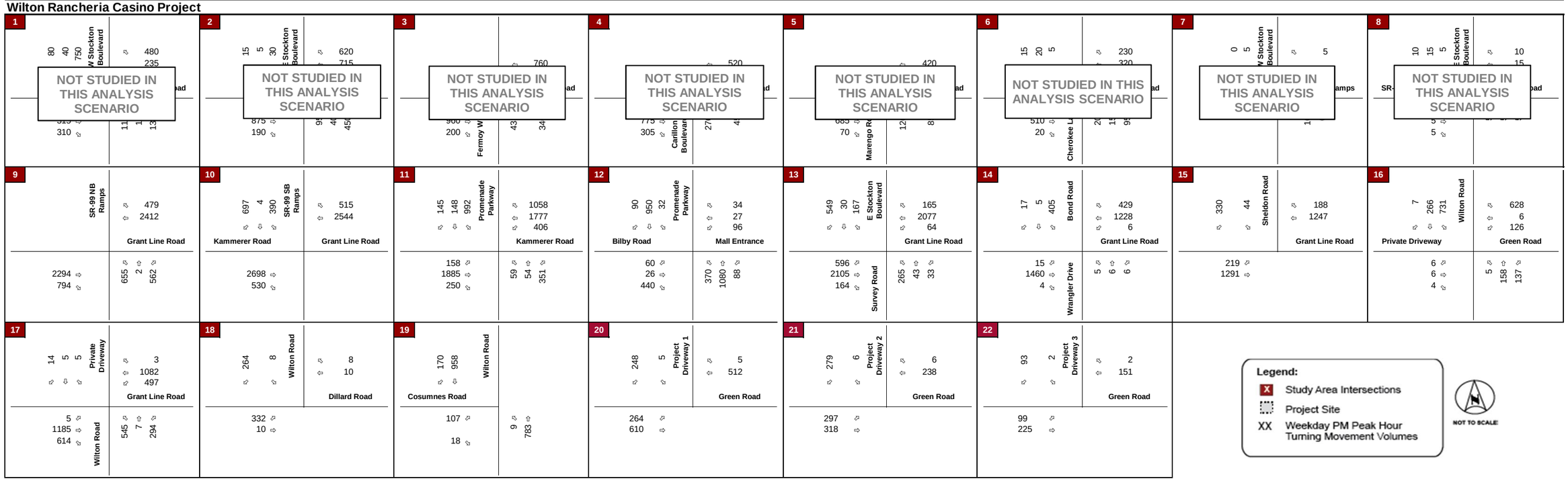
Vicinity Map (Intersections #1-8)



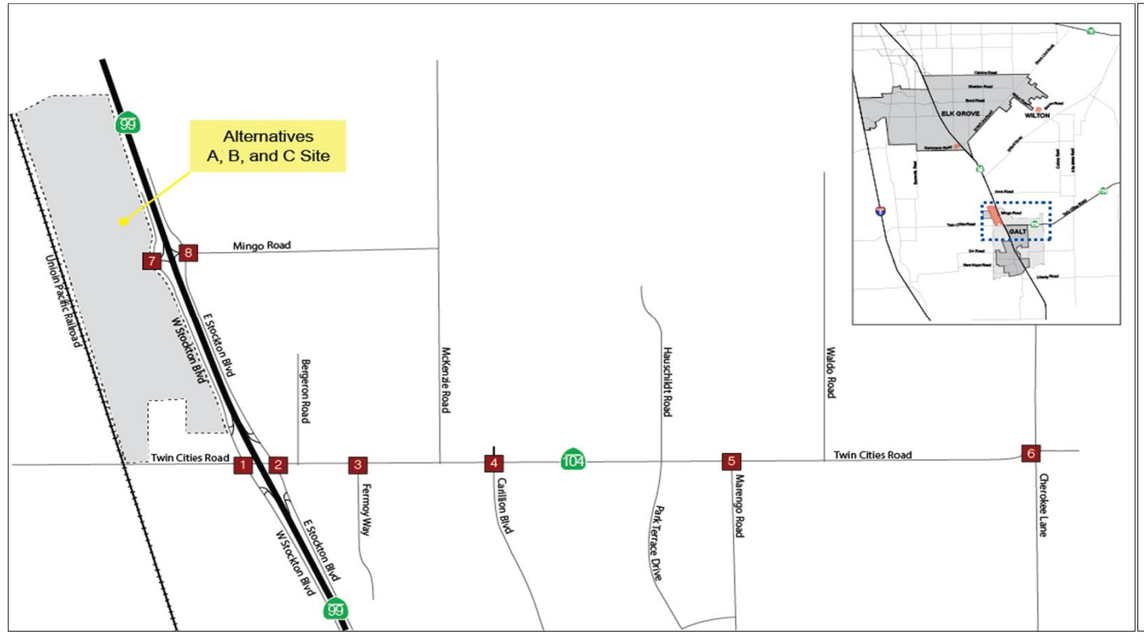
Vicinity Map (Intersections #9-22)



Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

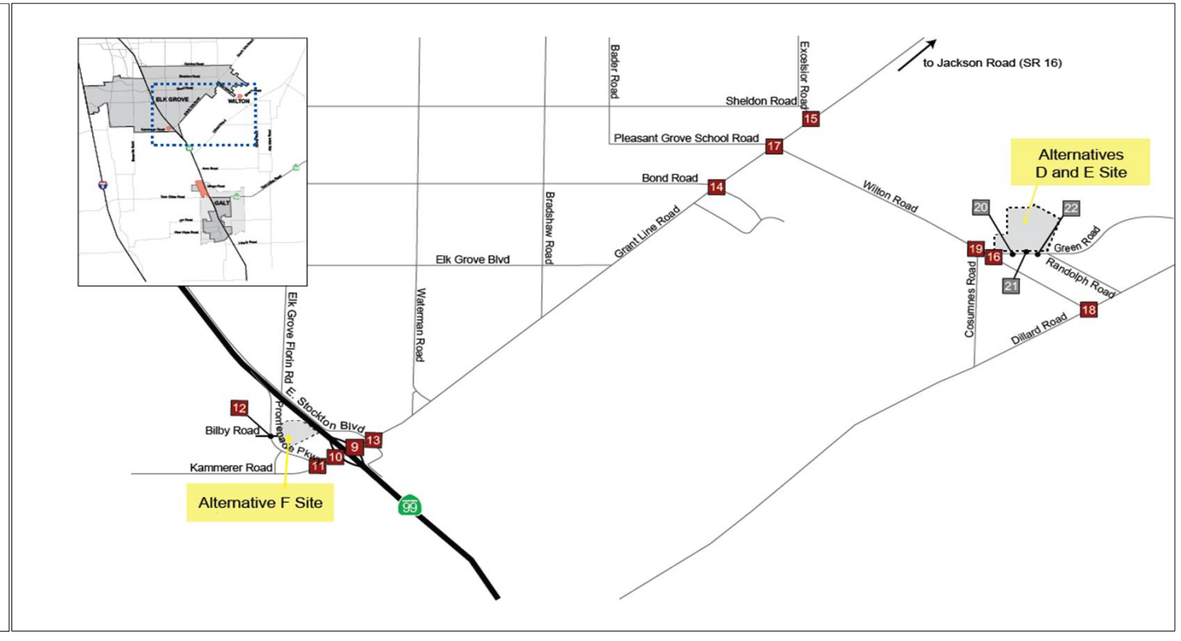
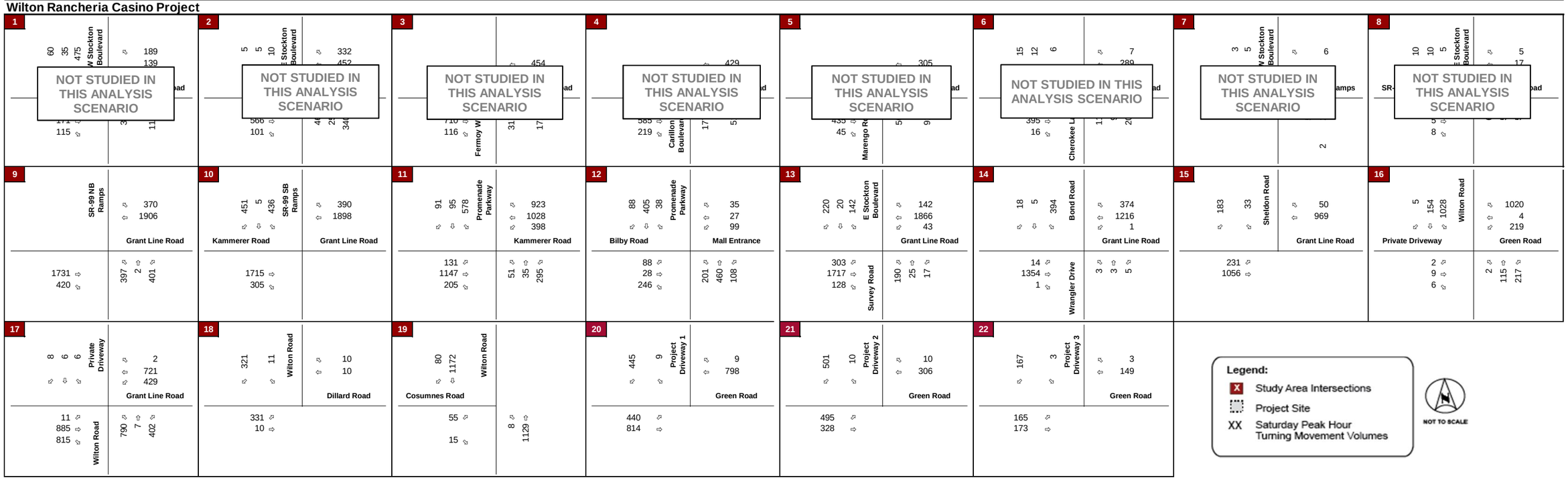


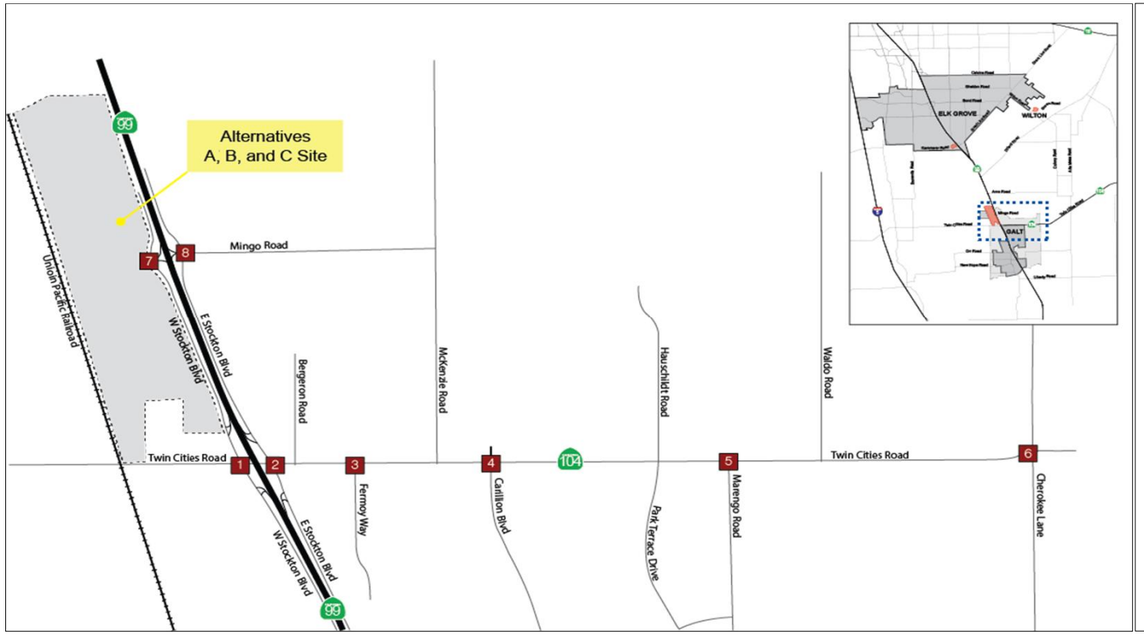
FIGURE 49

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE D WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

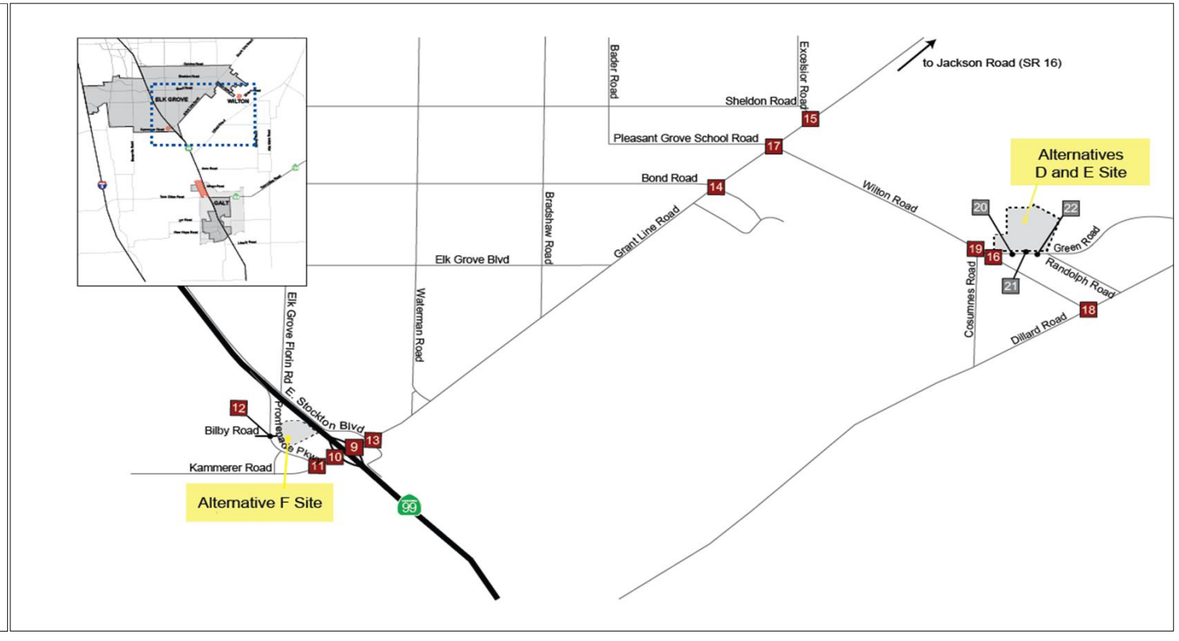


Table 57 – Alternative D Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	10.9	A	7.3
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	A	7.5	A	8.1
11	Promenade Parkway/Kammerer Rd	Signal	D	-	C	23.1	B	19.7	C	23.2	C	20.4
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	20.7	C	34.5	C	20.7	C	34.5
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2	**E**	**61.1**	C	32.8
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	**E**	**70.2**	**E**	**57.1**
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	C	24.9	B	14.3
16	Wilton Rd/Green Rd	AWSC	D	-	B	11.1	A	8.8	**F**	**206.4**	**F**	**401.8**
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	**F**	**227.4**	**F**	**356.3**
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	9.7	B	10.2
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	15.4	B	11.9	**F**	**155.2**	**F**	**298.8**
20	Green Road/Project Driveway 1	SSSC	D	SB	-	-	-	-	C	23.3	**F**	**713.3**
21	Green Road/Project Driveway 2	SSSC	D	SBL	-	-	-	-	D	31.0	**F**	**92.2**
22	Green Road/Project Driveway 3	SSSC	D	SB	-	-	-	-	A	9.7	B	10.3

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold.** Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

Table 58 – Alternative D Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	B	17.0	B	13.1
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	C	20.3	B	18.3
11	Promenade Parkway/Kammerer Rd	Signal	D	-	**F**	**87.5**	D	48.4	**F**	**99.3**	D	50.2
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	34.8	D	41.1	C	34.8	D	41.1
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**139.1**	**E**	**59.9**
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	D	36.1	C	32.2
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	17.3	B	12.4
16	Wilton Rd/Green Rd	AWSC	D	-	B	12.2	A	9.2	**F**	**231.8**	**F**	**420.0**
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	**F**	**155.1**	**F**	**217.6**
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	B	10.5	B	11.0
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	17.5	B	12.6	**F**	**238.0**	**F**	**401.9**
20	Green Road/Project Driveway 1	SSSC	D	SB	-	-	-	-	C	23.7	**F**	**727.6**
21	Green Road/Project Driveway 2	SSSC	D	SBL	-	-	-	-	D	31.4	**F**	**93.8**
22	Green Road/Project Driveway 3	SSSC	D	SB	-	-	-	-	A	9.8	B	10.3

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- Grant Line Road/East Stockton Boulevard
- Grant Line Road/Bond Road
- Wilton Road/Green Road
- Grant Line Road/Wilton Road
- Wilton Road/Cosumnes Road
- Green Road/Project Driveway 1
- Green Road/Project Driveway 2

Cumulative (2035) Results

- Promenade Parkway/Kammerer Road
- Grant Line Road/East Stockton Boulevard
- Wilton Road/Green Road
- Grant Line Road/Wilton Road
- Wilton Road/Cosumnes Road
- Green Road/Project Driveway 1
- Green Road/Project Driveway 2

8.8 Alternative D LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 59** summarizes the near-term (2018) roadway segment levels of service. **Table 60** summarizes the cumulative (2035) roadway segment levels of service.

Table 59 – Alternative D Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**23,185**	**F**	+0	13,197	C	
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	7,060	A		4,019	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	95	A		144	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	9,077	A		4,915	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,596	A		4,113	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	6,871	A		3,721	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	12,710	D		11,829	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	13,073	A		12,142	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	28,221	A		23,767	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	27,963	C		23,976	B	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**26,603**	**F**	+0.252	**23,431**	**F**	+0.364
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**25,049**	**F**	+0.381	**23,927**	**F**	+0.549
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**21,495**	**F**	+0.102	**17,417**	**E**	+0.148
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**19,688**	**F**	+0.062	15,554	D	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	6,847	D		6,672	D	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	**18,665**	**E**	+0.38	**20,876**	**E**	+0.548
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	5,897	C		6,331	D	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	**14,990**	**E**	+0.639	**19,427**	**F**	+0.922
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,311	B		2,397	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 60 – Alternative D Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	25,055	B		14,261	A	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	9,495	A		5,404	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	102	A		155	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	30,240	A		16,374	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,460	B		12,162	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,659	A		10,103	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	34,754	B		30,837	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	36,660	B		32,481	B	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	**49,341**	**E**	+0.049	39,547	C	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	45,438	D		36,968	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	35,197	B		29,629	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	31,910	D		28,863	D	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	28,949	D		23,391	B	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	22,582	B		18,111	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	7,547	D		7,209	D	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	**18,582**	**E**	+0.38	**20,807**	**E**	+0.548
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	5,814	C		6,258	D	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	**15,156**	**E**	+0.639	**19,578**	**F**	+0.922
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,394	B		2,479	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

As shown in the tables, project traffic will add traffic to several roadway segments and result in levels of service that exceed the established impact thresholds at the following locations:

Near-Term (2018) Results

- Grant Line Road – Waterman Road to Bradshaw Road
- Grant Line Road – Bradshaw Road to Wilton Road
- Grant Line Road – Wilton Road to Calvine Road
- Grant Line Road – Calvine Road to Jackson Road
- Wilton Road – Grant Line Road to Green Road
- Green Road – Wilton Road to project access driveways

Cumulative (2035) Results

- Grant Line Road – SR 99 to East Stockton Boulevard/Survey Road
- Wilton Road – Grant Line Road to Green Road
- Green Road – Wilton Road to project access driveways

The roadway segment analysis indicates that the segment of Grant Line Road from SR 99 to East Stockton Boulevard is anticipated to operate at unacceptable LOS E with the addition of the project trips for cumulative (2035) conditions. However, it should be noted that a significant portion of the westbound trips along Grant Line Road are turning right to access the NB SR 99 ramps just west of East Stockton Boulevard. The right-turn pocket connecting to the NB on-ramp extends over 400 feet to the east, essentially providing the capacity of a fourth travel lane in the westbound direction between East Stockton Boulevard and SR 99. For this reason, it is likely that the roadway segment analysis for this location provides an underestimate of the total capacity for this segment. Assuming an actual practical capacity that reflects a fourth travel lane in the westbound direction, this segment is anticipated to operate at acceptable LOS with the addition of the project traffic. Thus, no mitigation measures are recommended for this impact.

It should be noted that the segment of Twin Cities Road from Fermoy Way to Marengo Road is projected to operate at unacceptable LOS F for near-term conditions with and without the project. The project does not cause an increase in the roadway segment V/C ratio of 0.05 or more; thus, no project impact is identified at this location.

8.9 Alternative D LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project.

As with the no project scenarios, freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 61** and **Table 62**, respectively.

Table 61 – Alternative D Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	31.2	5.4%	C	21.1	5.5%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	27.8	5.3%	C	21.2	6.0%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	28.9	5.5%	C	21.4	5.4%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	29.1	5.4%	C	21.4	5.4%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	29.4	5.8%	C	21.6	5.4%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	C	24.3	0.0%	C	21.7	0.0%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	22.8	4.1%	C	21.0	4.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.3	5.4%	C	20.9	6.1%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	28.5	4.8%	C	23.1	4.5%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	30.1	5.2%	C	22.5	5.1%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	D	33.0	5.4%	C	23.9	5.3%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	D	33.0	5.4%	C	23.9	4.8%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	27.5	5.0%	C	22.1	5.2%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	C	25.6	1.6%	C	21.9	1.4%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	C	24.8	1.2%	C	21.4	1.4%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	22.1	4.2%	C	20.9	4.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	25.0	6.4%	B	15.6	9.1%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 62 – Alternative D Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
Stockton Boulevard (West)/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**35.4**	**E**	4%	27.8	C	4.1%
Stockton Boulevard (West)/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	29.6	D	3.5%	23.9	C	4.8%
Stockton Boulevard (West)/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	31.3	D	3.6%	25.0	C	4.6%
Stockton Boulevard (East)/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	31.2	D	3.3%	24.9	C	5.5%
Stockton Boulevard (East)/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	30.5	D	3.7%	24.1	C	4.8%
SR 99 Ramps at Mingo Road												
Stockton Boulevard (West)/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	33.9	D	3.7%	26.4	C	4.8%
Stockton Boulevard (West)/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**35.5**	**E**	3.2%	28.6	D	3.6%
Stockton Boulevard (East)/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	31.9	D	7.0%	23.9	C	5.8%
Stockton Boulevard (East)/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	32.9	D	3.8%	**38.0**	**E**	51.4%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	19.7	B	4.2%	18.0	B	4.0%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	C	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	23.0	C	1.3%	19.9	B	1.5%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 63** and **Table 64**, respectively.

Table 63 – Alternative D Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**E**	**41.5**	6.1%	**E**	**35.6**	5.6%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**E**	**41.4**	6.4%	**E**	**35.6**	6.0%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**48.3**	7.3%	**E**	**37.4**	6.2%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**48.5**	7.3%	**E**	**37.3**	5.4%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**49.5**	7.4%	**E**	**40.7**	6.5%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**38.1**	0.8%	**E**	**36.6**	0.8%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**38.8**	4.6%	**E**	**35.0**	4.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**38.3**	6.7%	**E**	**36.8**	6.7%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**53.0**	7.1%	**F**	**45.6**	6.3%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**55.2**	7.6%	**E**	**40.3**	6.1%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**57.8**	7.8%	**F**	**45.6**	6.5%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**58.0**	7.8%	**F**	**45.7**	6.5%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	28.9	5.1%	C	26.0	5.3%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	29.4	1.4%	D	26.2	1.6%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	C	25.1	1.2%	C	23.4	1.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	C	25.2	4.1%	C	24.3	4.3%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	25.5	-5.2%	C	23.1	6.0%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 64 – Alternative D Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
Stockton Boulevard (West)/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**45.9**	**F**	7%	**41.9**	**F**	7.2%
Stockton Boulevard (West)/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**39.2**	**F**	6.5%	**36.3**	**E**	7.1%
Stockton Boulevard (West)/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**41.9**	**F**	6.6%	**37.0**	**E**	6.9%
Stockton Boulevard (East)/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**40.1**	**E**	7.5%	**37.0**	**E**	7.9%
Stockton Boulevard (East)/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**39.7**	**F**	6.4%	**35.7**	**E**	7.2%
SR 99 Ramps at Mingo Road												
Stockton Boulevard (West)/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**44.4**	**F**	2.8%	**40.4**	**F**	2.8%
Stockton Boulevard (West)/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**45.0**	**F**	2.5%	**41.4**	**F**	2.7%
Stockton Boulevard (East)/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**41.6**	**F**	3.2%	**36.7**	**E**	3.4%
Stockton Boulevard (East)/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**42.4**	**F**	2.9%	**38.8**	**E**	5.1%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	30.7	D	4.4%	28.3	D	0.7%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	D	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	23.0	C	1.3%	21.6	C	1.4%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent (5%) with the addition of the project. Significant congestion is expected with and without the project.

8.10 Alternative D Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative D traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown on **Table 65** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 65 – Alternative D Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	No mitigation necessary	-	-
12	Promenade Parkway/Bilby Rd	No mitigation necessary	-	-
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane.	No	• Capacity
14	Grant Line Rd/Bond Rd	• Widen EB and WB approaches to provide two through lanes. (These improvements are consistent with planned widening of Grant Line Road from two to four lanes)	Yes	• Capacity
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	• Realign Green Rd and Cosumnes Rd to form a single-point intersection. • Signalize intersection. Use protected left-turn signal phasing for NB/SB approaches. Use permitted left-turn phasing for EB/WB approaches. • Widen WB approach to provide one shared through-left and one right-turn lane. • Widen SB approach to two left-turn lanes and one shared through-right. • Provide WB right-turn overlap signal phase during SB left-turn phase.	Yes	• Capacity • Safety • Queuing
17	Grant Line Rd/Wilton Rd	• Widen EB approach to provide one left-turn lane, one through lane and one right-turn lane. • Widen NB approach to provide two left-turn lanes and one shared through-right lane.	Yes	• Capacity • Queuing
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	• See mitigation for Intersection #16		
20	Green Road/Project Driveway 1	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and one through lane. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
21	Green Road/Project Driveway 2	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and two through lanes. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
22	Green Road/Project Driveway 3	No mitigation necessary	-	-

Table 65 – Alternative D Summary of Mitigations (cont.)

Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	• Optimize signal timings.	No	• Capacity • Queuing
12	Promenade Parkway/Bilby Rd	No mitigation necessary	-	-
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane. • Convert NB/SB signal phasing from split to protected left-turn phasing. • Implement traffic signal coordination to improve progression along Grant Line Rd with adjacent signalized intersections during weekday PM peak period.	No	• Capacity
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	• Realign Green Rd and Cosumnes Rd to form a single-point intersection. • Signalize intersection. Use protected left-turn signal phasing for NB/SB approaches. Use permitted left-turn phasing for EB/WB approaches. • Widen WB approach to provide one shared through-left and one right-turn lane. • Widen SB approach to two left-turn lanes and one shared through-right. • Provide WB right-turn overlap signal phase during SB left-turn phase.	Yes	• Capacity • Safety • Queuing
17	Grant Line Rd/Wilton Rd	• Widen EB approach to provide one left-turn lane, two through lanes and one right-turn lane. • Widen NB approach to provide two left-turn lanes and one shared through-right lane.	Yes	• Capacity • Queuing
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	• See mitigation for Intersection #16		
20	Green Road/Project Driveway 1	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and one through lane. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
21	Green Road/Project Driveway 2	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and two through lanes. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
22	Green Road/Project Driveway 3	No mitigation necessary	-	-

Table 65 – Alternative D Summary of Mitigations (cont.)

Near-Term Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	East of Fermoy Way	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
Stockton Boulevard (East)	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
Stockton Boulevard (West)	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	No mitigation necessary	-	-
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	• Widen Grant Line Rd to four lanes from Waterman Rd to Jackson Rd	Yes	• Capacity
	Bradshaw Rd to Wilton Rd			
	Wilton Rd to Calvine Rd			
	Calvine Rd to Jackson Rd			
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	• Where feasible, widen Wilton Rd to four lanes between Grant Line Rd and Green Rd.	Yes	• Capacity
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2.	Yes	• Capacity
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

Table 65 – Alternative D Summary of Mitigations (cont.)
Cumulative Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	East of Fermoy Way	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
Stockton Boulevard (East)	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
Stockton Boulevard (West)	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	No mitigation necessary	-	-
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	No mitigation necessary	-	-
	Bradshaw Rd to Wilton Rd	No mitigation necessary	-	-
	Wilton Rd to Calvine Rd	No mitigation necessary	-	-
	Calvine Rd to Jackson Rd	No mitigation necessary	-	-
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	• Where feasible, widen Wilton Rd to four lanes between Grant Line Rd and Green Rd.	Yes	• Capacity
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2.	Yes	• Capacity
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

The most significant component of the Alternative D mitigations are roadway and intersection improvements to facilitate sufficient ingress/egress to the project site from Wilton Road and Green Road. The existing streets and intersections within the vicinity of the Historic Rancheria site are predominantly designed with limited capacity to serve the existing low traffic demand in this rural area. Without mitigation, the traffic demand generated by the proposed project could not be accommodated by the existing street and intersection capacity. The proposed mitigation measures include the realignment of Green Road and Cosumnes Road at Wilton Road to form a single-point signalized intersection. Green Road would be widened to four lanes from Wilton Road to the central project access driveway and partial widening of Wilton Road to provide additional travel lanes or passing lanes, where feasible, would be recommended north of Green Road to Grant Line Road.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities and Mingo interchanges, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at

the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 12% based on standard Caltrans methodology for calculating equitable mitigation measures.

Table 66 and **Table 67** summarize the expected intersection levels of service with the proposed mitigation measures.

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Table 66 – Alternative D Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	10.9	A	7.3	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	A	7.5	A	8.1	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	C	23.1	B	19.7	C	23.2	C	20.4	-	-	-	-
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	20.7	C	34.5	C	20.7	C	34.5	-	-	-	-
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**61.1**	C	32.8	D	52.8	D	36.2
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	**E**	**70.2**	**E**	**57.1**	C	29.8	C	30.8
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	C	24.9	B	14.3	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	11.1	A	8.8	**F**	**206.4**	**F**	**401.8**	B	11.7	B	18.0
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	**F**	**227.4**	**F**	**356.3**	D	48.3	D	48.9
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	9.7	B	10.2	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	15.4	B	11.9	**F**	**155.2**	**F**	**298.8**	N/A			
20	Green Road/Project Driveway 1	-	0	0.0	0.00	0.0	-	-	-	-	C	23.3	**F**	**713.3**	A	9.4	B	14.6
21	Green Road/Project Driveway 2	-	0	0.0	0.00	0.0	-	-	-	-	D	31.0	**F**	**92.2**	B	10.3	B	17.1
22	Green Road/Project Driveway 3	-	0	0.0	0.00	0.0	-	-	-	-	A	9.7	B	10.3	-	-	-	-

Table 67 – Alternative D Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	B	17.0	B	13.1	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	C	20.3	B	18.3	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	**F**	**87.5**	D	48.4	**F**	**99.3**	D	50.2	**F**	**85.3**	D	40.7
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	34.8	D	41.1	C	34.8	D	41.1	-	-	-	-
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**139.1**	**E**	**59.9**	**F**	**88.1**	D	53.2
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	D	36.1	C	32.2	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	17.3	B	12.4	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	12.2	A	9.2	**F**	**231.8**	**F**	**420.0**	B	14.5	B	19.5
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	**F**	**155.1**	**F**	**217.6**	D	53.9	D	49.7
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	B	10.5	B	11.0	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	17.5	B	12.6	**F**	**238.0**	**F**	**401.9**	N/A			
20	Green Road/Project Driveway 1	-	0	0.0	0.00	0.0	-	-	-	-	C	23.7	**F**	**727.6**	A	9.4	B	14.6
21	Green Road/Project Driveway 2	-	0	0.0	0.00	0.0	-	-	-	-	D	31.4	**F**	**93.8**	B	10.3	B	17.2
22	Green Road/Project Driveway 3	-	0	0.0	0.00	0.0	-	-	-	-	A	9.8	B	10.3	-	-	-	-

As noted in the tables, with the recommended mitigation measures, all study intersections would operate at acceptable levels of service or at reduced levels where the project traffic would not exceed the established thresholds of significance. The Promenade Parkway/Kammerer Road and Grant Line Road/East Stockton Boulevard intersections would continue to operate at unacceptable LOS after mitigation for 2035 weekday PM peak conditions, but the average control delay would be reduced to below conditions without the project.

In addition, the recommended roadway mitigation measures would result in acceptable levels of service for impacted roadway segments.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Project Alternative D is anticipated to add up to 3,000 vehicle trips per day to Dillard Road between SR-99 and Wilton Road, which represents about a 70 percent increase over the projected near-term traffic volumes along this segment. Per County staff, the existing PCI for this roadway ranges from 61-97, which represents fair condition; however, there are currently no shoulders along a significant portion of this roadway segment. Between SR-99 and Wilton Road, the project should be responsible for improving Dillard Road to the County's Improvement Standard with a minimum 36-foot paved section, with 12-foot lanes, and 6-foot shoulders.

Wilton Road from Green Road to Dillard Road currently has no shoulders. The project is anticipated to add about 3,100 new daily trips to this segment, which represents about an 80 percent increase over the projected near-term traffic volumes along this segment. Between Green Road and Dillard Road, the project should be responsible for improving Wilton Road to the County's Improvement Standard with a continuous center turn lane. This would require a 48-foot paved section, with 12-foot lanes, a 12-foot two-way left-turn lane, and 6-foot shoulders.

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are little-to-no sidewalks, trails or designated bicycle facilities within the vicinity of the proposed project site; thus the project would not inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site.

Because no fixed route transit service will be available at the project site, the casino and hotel should provide a shuttle that provides service to locations with connections to existing transit services in the City of Elk Grove. The shuttle could run throughout the day or could be called out on demand.

8.11 Alternative D VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative D is summarized in **Table 68**.

Table 68 – Alternative D VMT

Alternative D - Casino Resort at Rancheria Site							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	31%	29.3	11,716	343,279	17,007	498,305
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	45%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	19%					

8.12 Alternative D Construction Traffic Impacts

Impacts resulting from the construction of Alternative D would be temporary in nature. Construction activity impacts would be concentrated on Green Road in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways

(USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.

- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays.

9. ALTERNATIVE E – REDUCED INTENSITY CASINO AT RANCHERIA SITE

Alternative E represents the evaluation of traffic conditions with the construction of the proposed reduced-intensity casino project at the Historic Rancheria site. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

9.1 Proposed Site Uses

The Alternative E casino and hotel is proposed to be located as shown in **Figure 1**, the community of Wilton in unincorporated Sacramento County, just southeast of the Elk Grove City Limits.

Figure 51 shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities occupy the eastern portion of the parcel, which currently includes predominantly low-density rural areas.

The project site includes a main casino building area of approximately 293,000 square feet, which includes casino gaming area, restaurants, food court, lobby, back of house and other ancillary functions. This project alternative includes no hotel facilities. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Casino Building Area – 293,000 s.f.
- Gaming Floor Area – 110,260 s.f.
- Gaming Positions – 2,004 positions

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Figure 51

Alternative E Site Plan

9.2 Site Access

Access to the Historic Rancheria Site is provided from Green Road in the community of Wilton – just east of Wilton Road and southeast of the Grant Line Road and the Elk Grove city limit. The main project access is from Green Road with three new site access driveways. For the purposes of this analysis, the site access driveways are assumed to initially have side-street stop-control and single lane ingress and egress. Project traffic accessing the site from SR 99 is anticipated to exit at Grant Line Road, continue east to Wilton Road before turning onto Green Road.

9.3 Project Trip Generation

Project trip generation for Alternative E was calculated using the assumptions and methodologies described in the Alternative A section and is shown in **Table 56**. As discussed in the Alternative A trip generation section, a lower diverted link trip reduction (3%) is assumed for casino alternatives at the Historic Rancheria site due to increased distance from SR 99.

As seen in the table, the project is expected to generate 8,770 new weekday trips, 14,058 new Saturday trips, 1,052 new trips in the weekday PM peak hour and 1,968 new trips in the Saturday PM peak hour.

Table 69 – Alternative E Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Casino	N/A	110,260	SF Gaming Floor Area	9,041	510	575	1,085	14,493	954	1,075	2,029
Diverted Link Trips (3%) [4]				(271)	(17)	(16)	(33)	(435)	(31)	(30)	(61)
Net New Vehicle Trips				**8,770**	**493**	**559**	**1,052**	**14,058**	**923**	**1,045**	**1,968**

SF -Square Feet; GFA - Gaming Floor Area

Casino[2]

Weekday Daily	T = 82.00 x (1000's of SF GFA)	50% In	50% Out
Saturday Daily	T = 131.44 x (1000's of SF GFA)	50% In	50% Out
Weekday PM Peak Hour	T = 9.84 x (1000's of SF GFA)	47% In	53% Out
Saturday Peak Hour	T = 18.40 x (1000's of SF GFA)	47% In	53% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Peak hour casino trip generation rates based on surveyed existing trip generation for existing Thunder Valley Casino. Reference: *Draft Existing Conditions Traffic Study - Thunder Valley Casino Expansion Project (Kimley-Horn and Associates, Inc., 2005).* Daily trip generation rates for casino uses were not presented in the Thunder Valley Casino Study; thus, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio documented in published traffic studies for other comprable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used for simililar projects in other tribal casino studies and with the daily customer and employee totals projected for the proposed project.

(3) The proposed casino facility includes other auxiliary/internal uses in addition to gaming area, such as restaurants, back of house, lounges, etc. However, only the casino gaming floor area (GFA) is used as the independent variable for the purposes of estimating trip generation. This is because the trip generation rates use GFA as the independent variable, and were developed based on empirical data from similar existing casino facilities, and include the trips associated with all of the casino uses (gaming areas, restaurants, lounges, back of house, etc.), excluding convention space.

(4) The project site is located adjacent to State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 3%. This adjustment is likely conservative and is within the range identified by Caltrans' guidance for pass-by/diverted link trip reductions for retail-oriented development (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002). Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the casino trip generation estimates.

9.4 Project Trip Distribution and Assignment

The trip distribution for Alternative E was developed using the methodologies discussed previously for Alternative A. Much of the casino project trips are expected to travel to/from SR-99 with origins/destinations in Elk Grove and Sacramento to the north/northeast, and Lodi and Stockton to the south. Based on the likely customer and employee base for the site and orientation of the regional roadway network, it was estimated that approximately 51% of the project traffic would be distributed to destinations north of the site – the vast majority of these trips using SR-99 and traveling to Wilton through the City of Elk Grove via Grant Line Road, Bond Road, and to a lesser extent, Elk Grove Boulevard, Sheldon Road and Calvine Road. A smaller proportion of the trips distributed to destinations north of the site would use Grant Line Road and Dillard Road to/from communities in eastern Sacramento County and El Dorado County. Approximately 13.5% of the project trips would be distributed to I-5 and destinations west of the site via Grant Line Road/Kammerer Road. Approximately 15% of the project trips are distributed within the City of Elk Grove. Approximately 19% of the project traffic distributed to destinations south of the site via SR-99 and connecting to Wilton via Dillard Road. **Figure 42** illustrates project traffic assigned to the study area based on the assumed trip distribution for Historic Rancheria casino project alternatives (Alternative D and E).

Figure 52 and **Figure 53** show the Alternative E project traffic assignment for near-term weekday and Saturday PM peak hour conditions. **Figure 54** and **Figure 55** show the Alternative E project traffic assignment for long-term cumulative (2035) weekday and Saturday PM peak hour conditions.

9.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative E project. **Figure 56** and **Figure 57** illustrate the combined near-term turning movement volumes at the study intersections.

9.6 Long-Term Plus Project Traffic Volumes

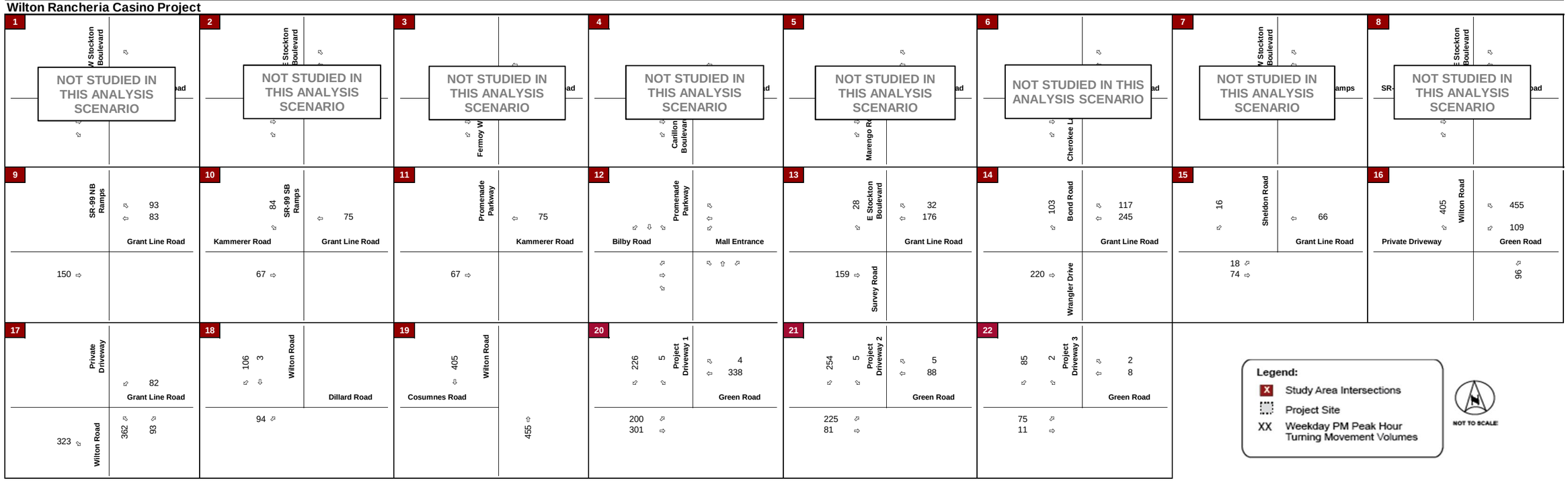
Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative E project. **Figure 58** and **Figure 59** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

9.7 Alternative E LOS Conditions and Impacts at Intersections

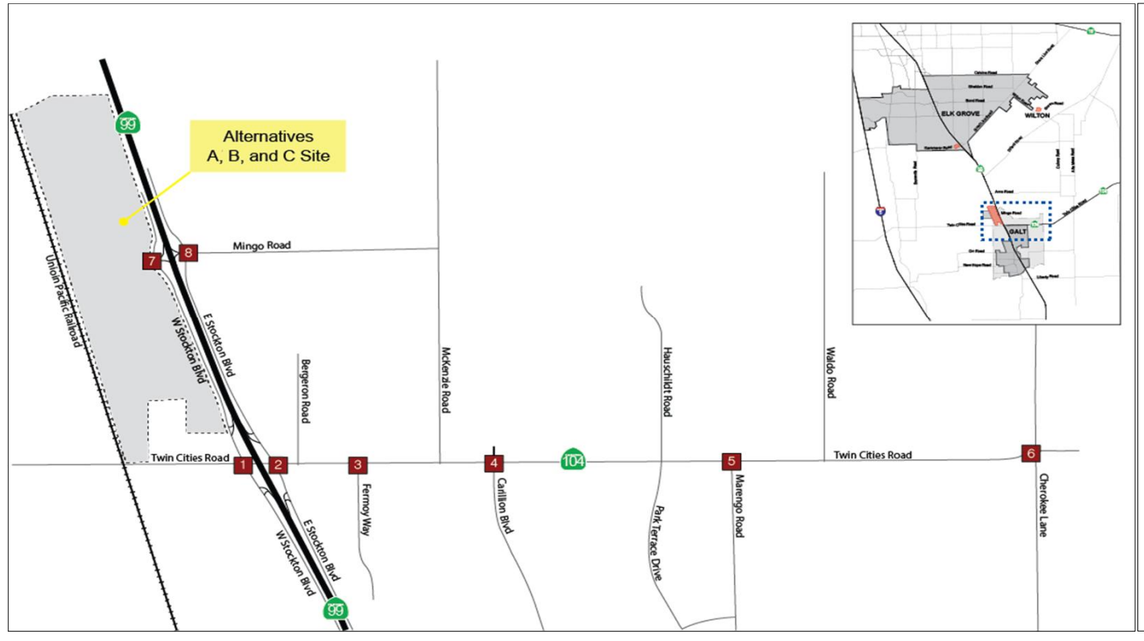
Traffic operations were evaluated for near-term conditions (2018) and long-term cumulative conditions with Alternative E (year 2035).

Results of the analysis are presented in **Table 70** and **Table 71**, respectively. Additional detail is provided in the **Appendix**.

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

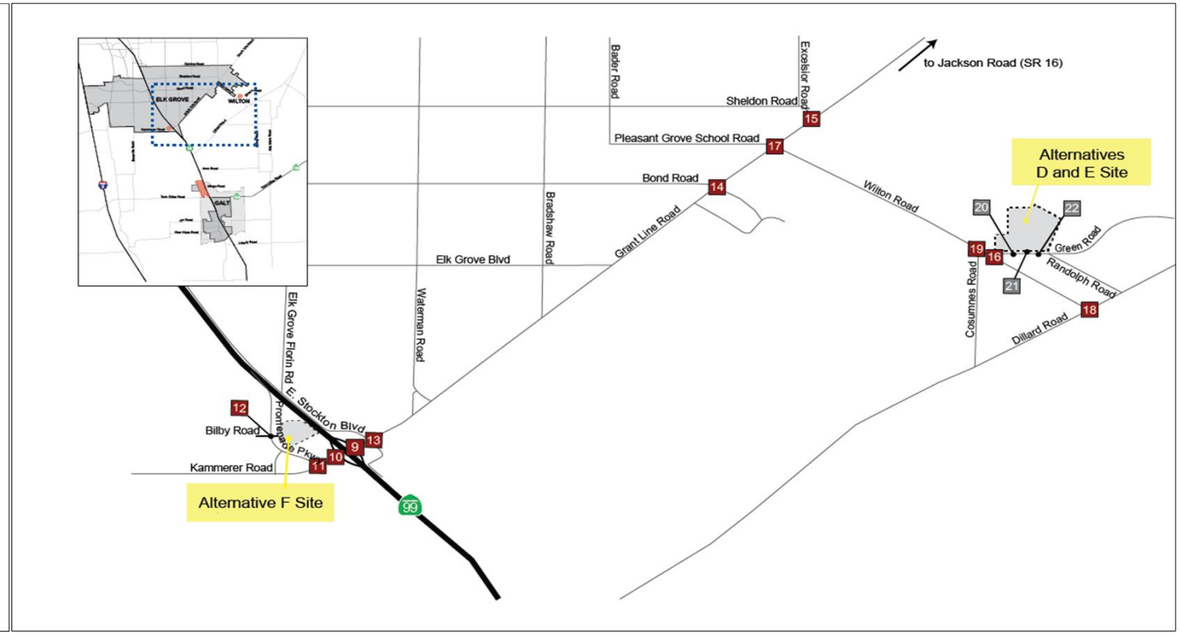


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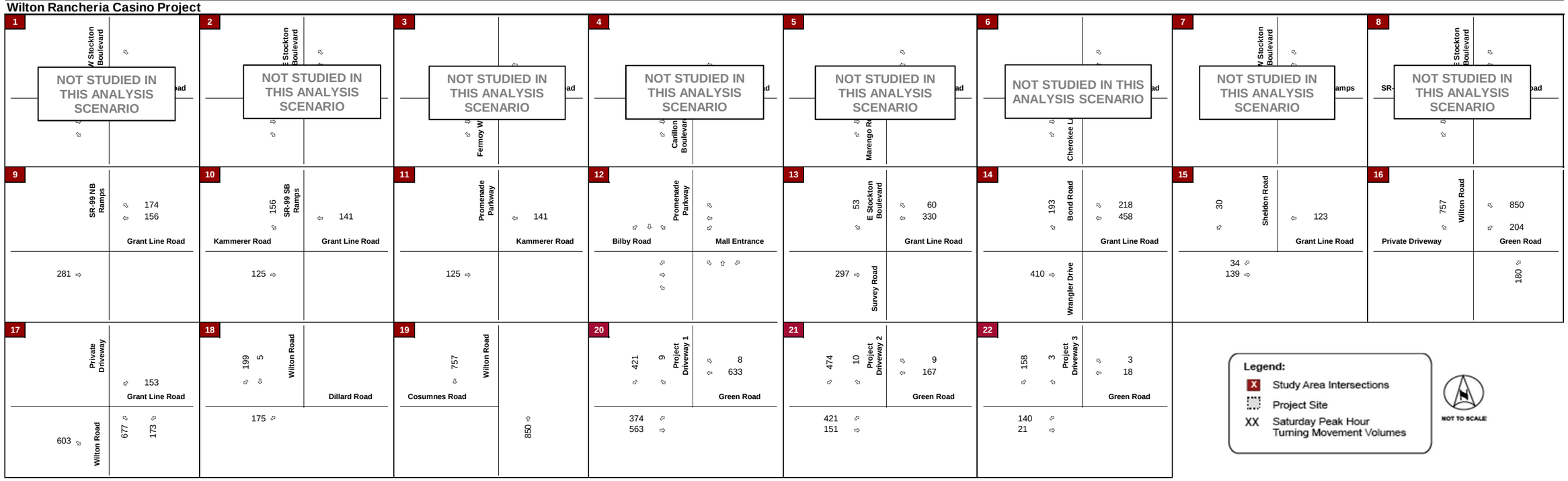
FIGURE 52

ALTERNATIVE E - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



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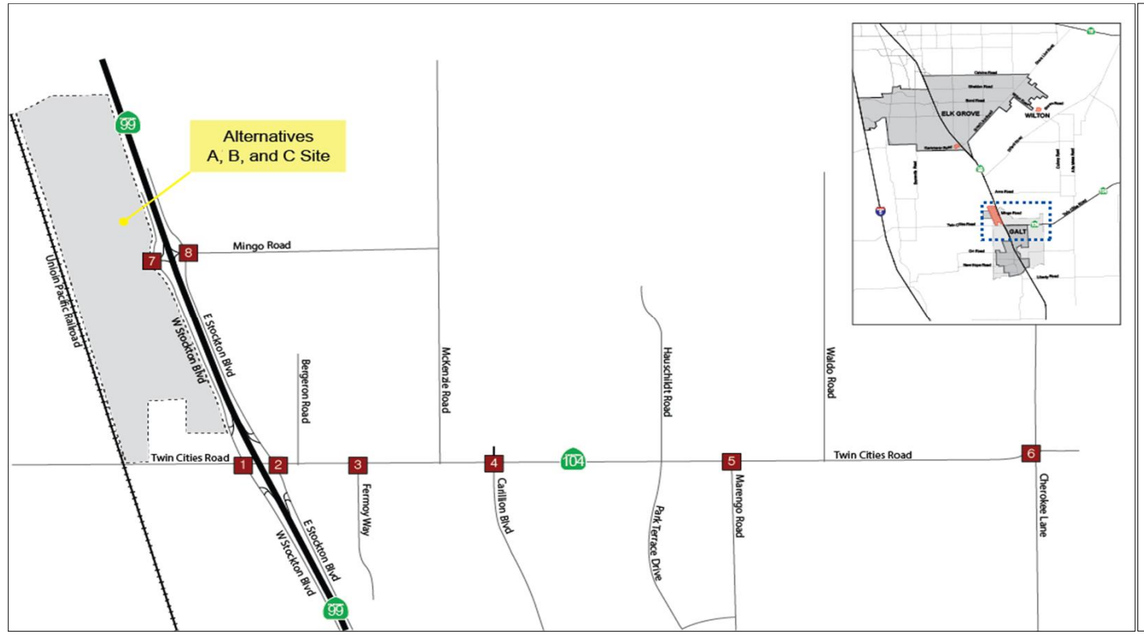

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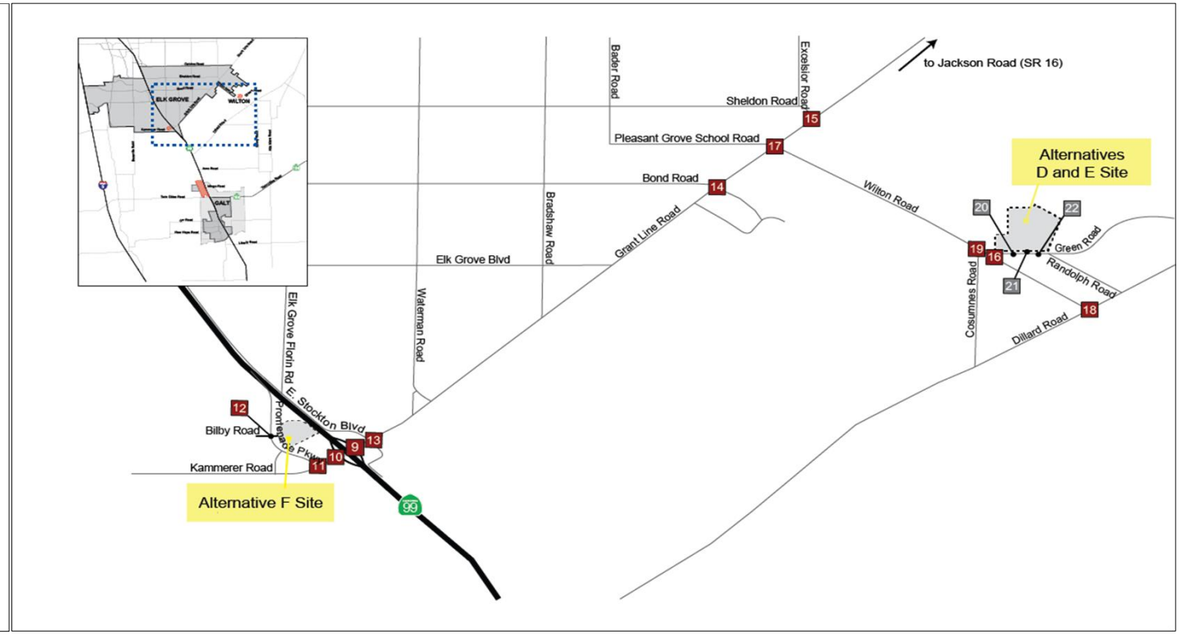

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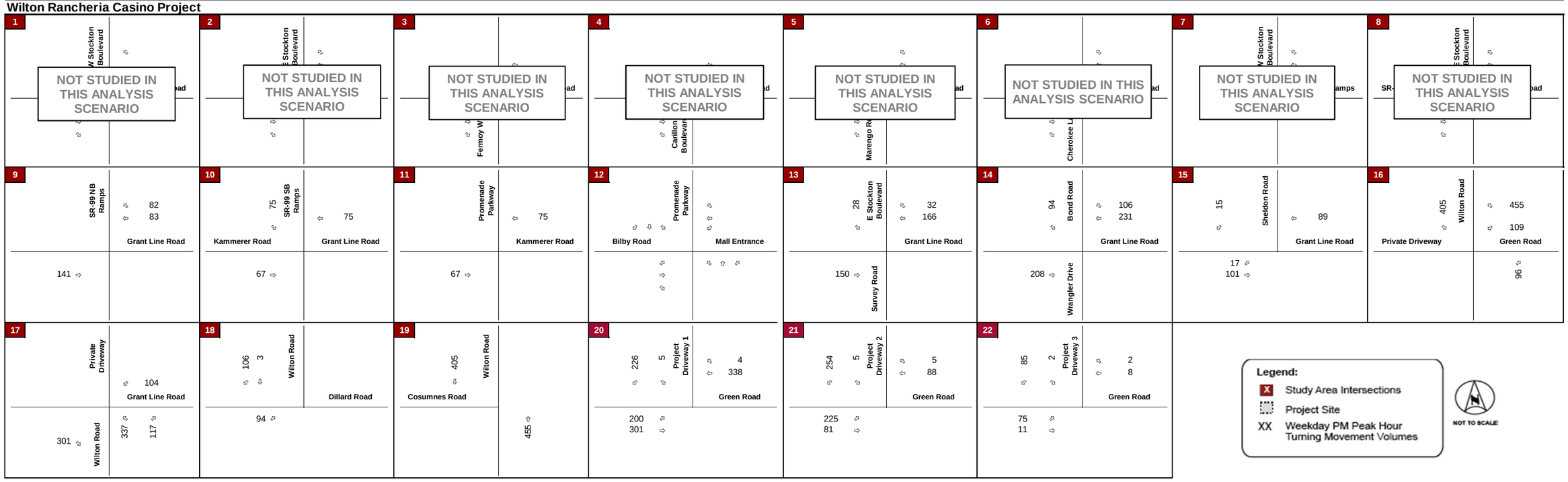
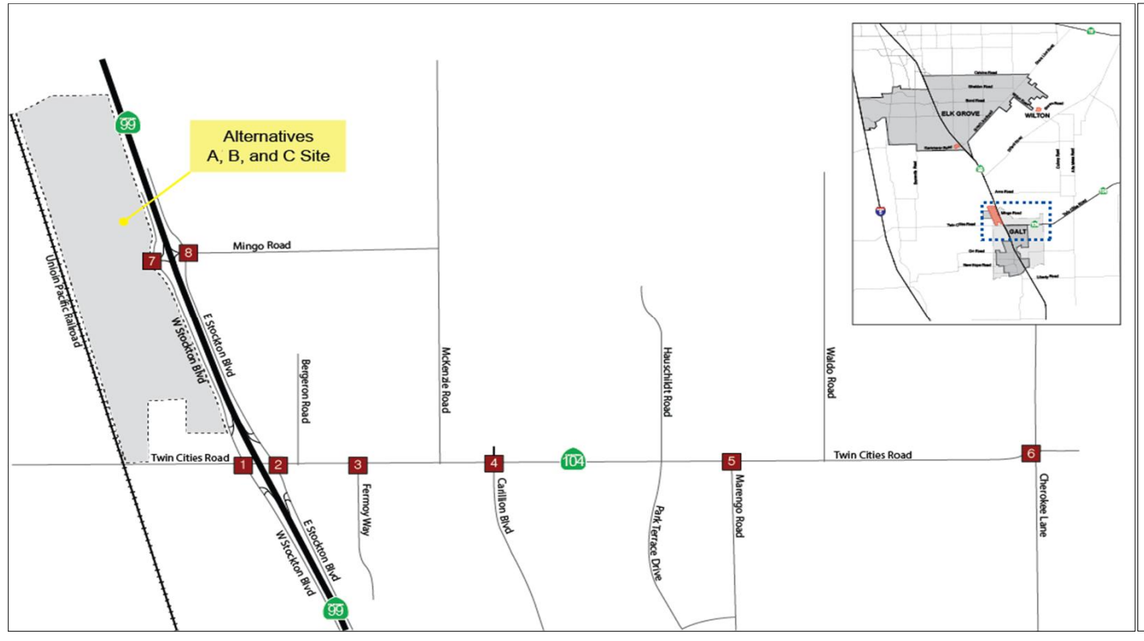
FIGURE 53

ALTERNATIVE E - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

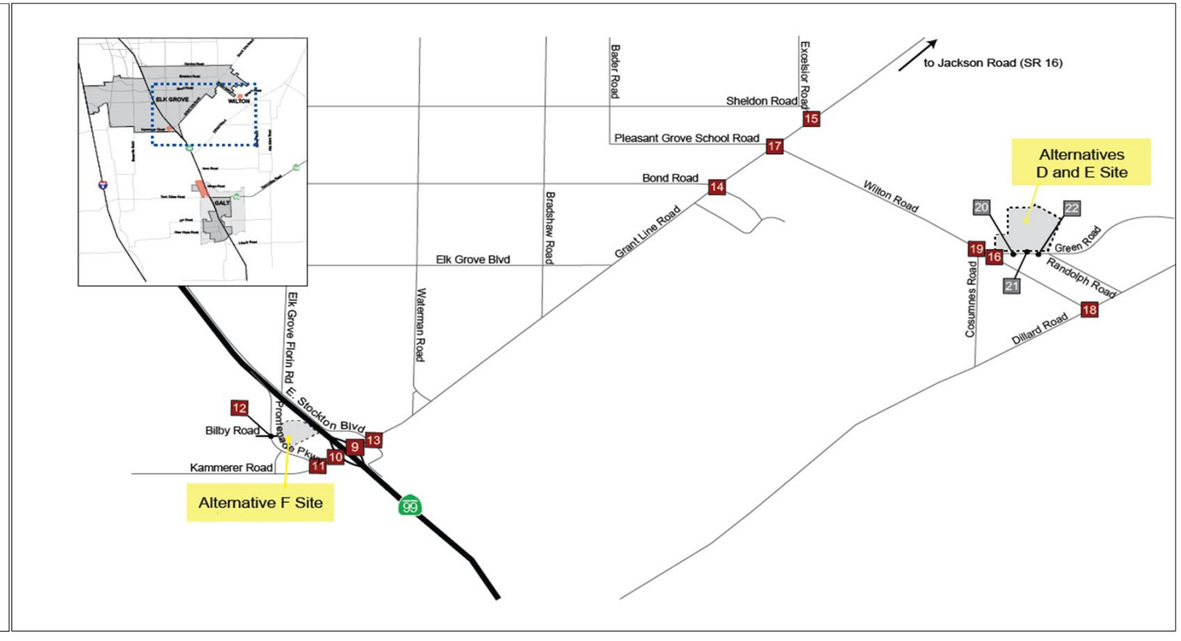


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FIGURE 54

ALTERNATIVE E - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

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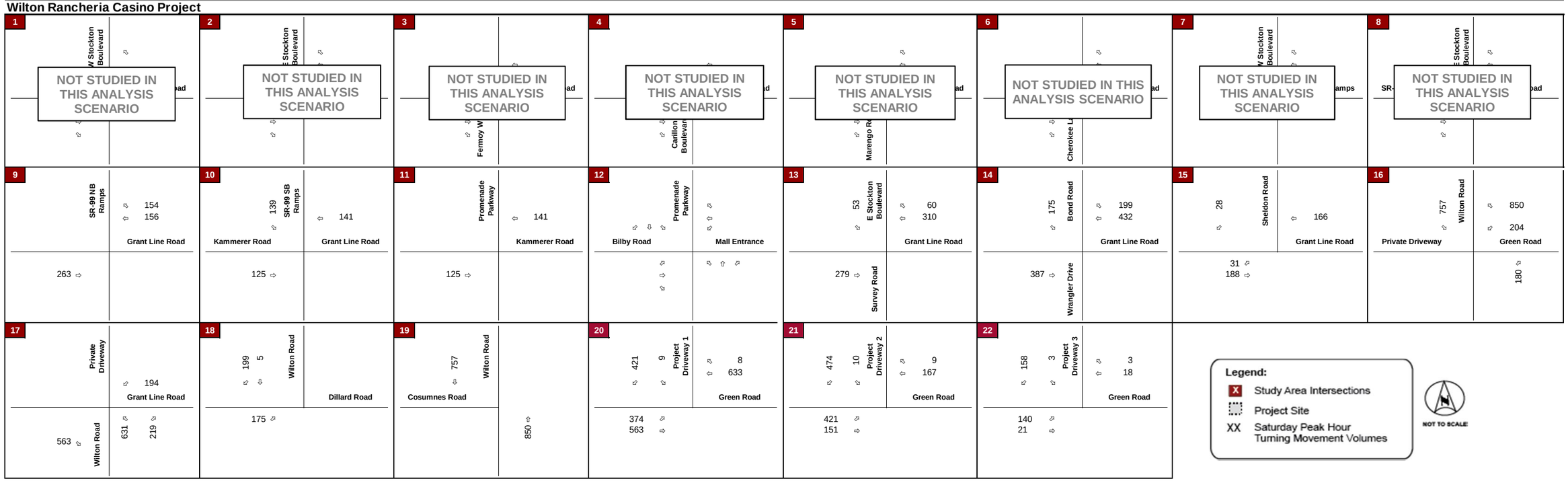
Wilton Rancheria Casino Project



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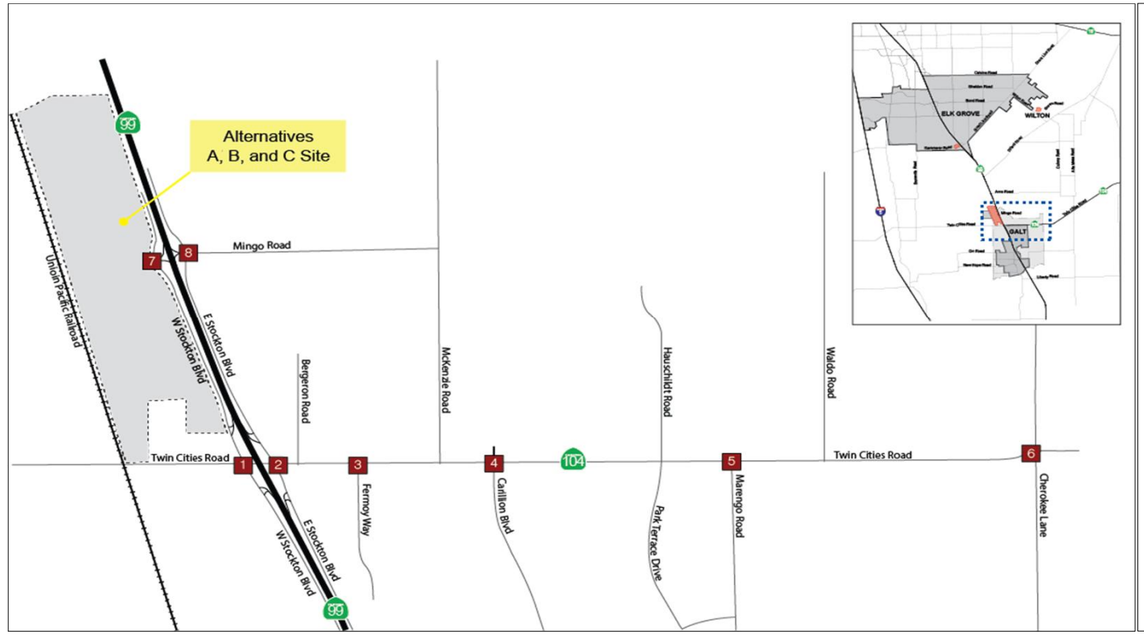

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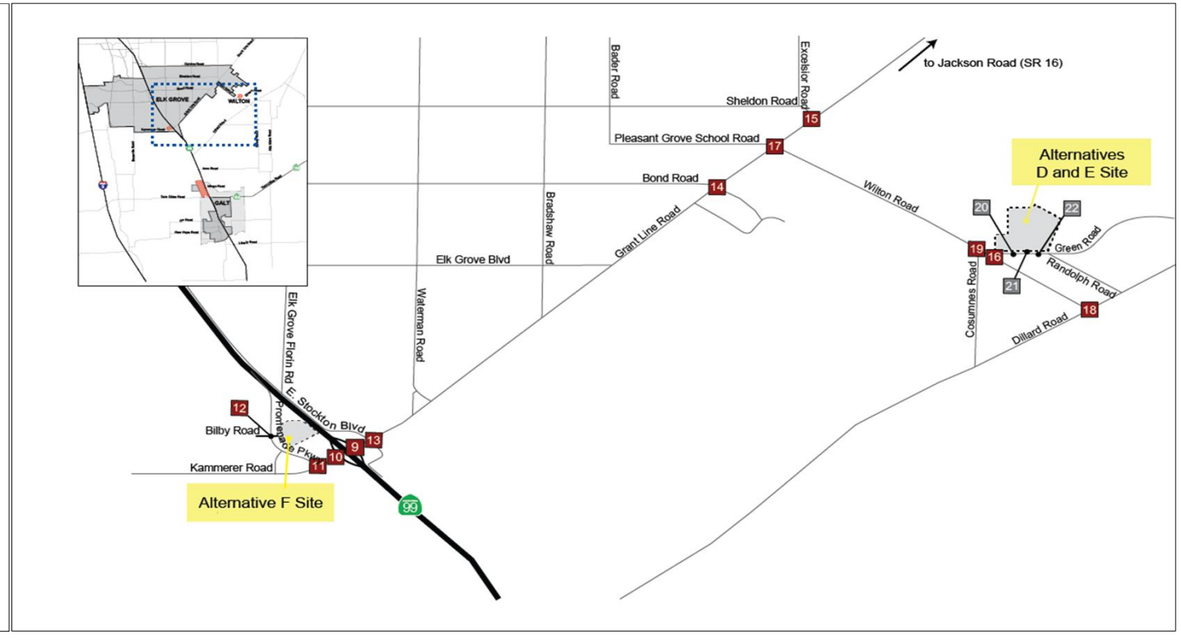

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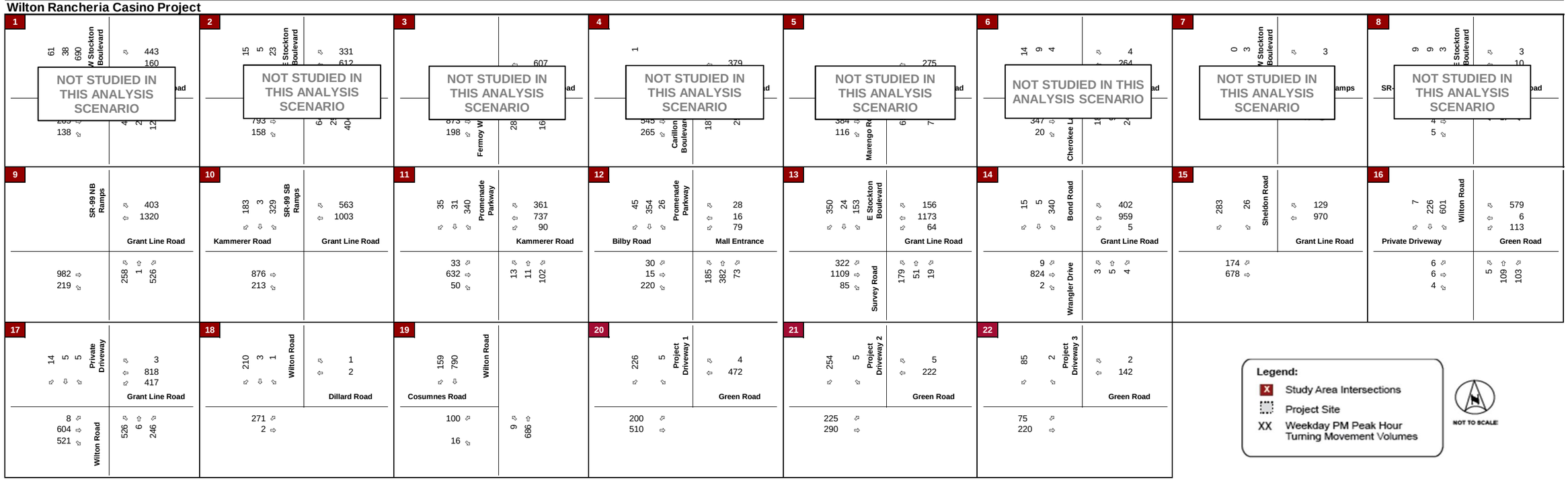
FIGURE 55

ALTERNATIVE E - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

Wilton Rancheria Casino Project



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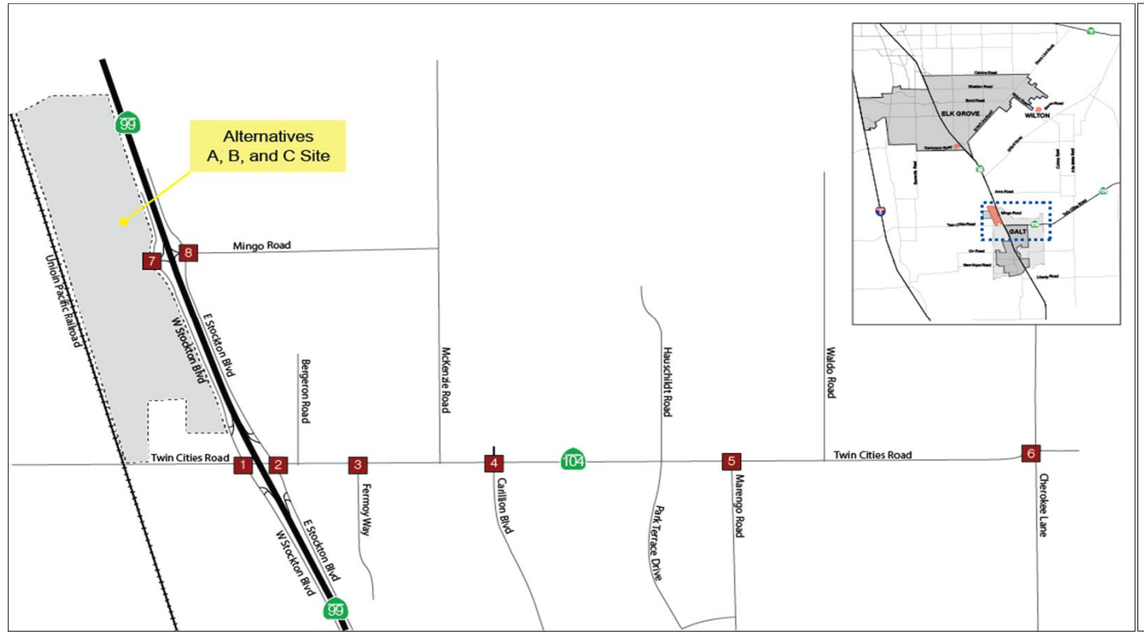

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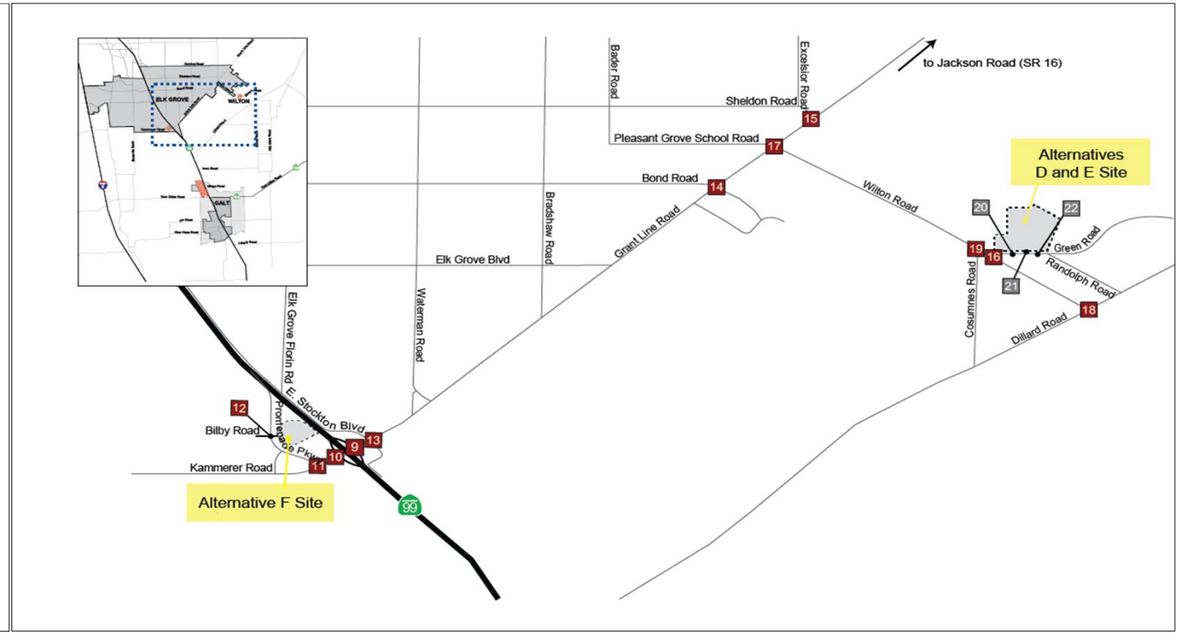

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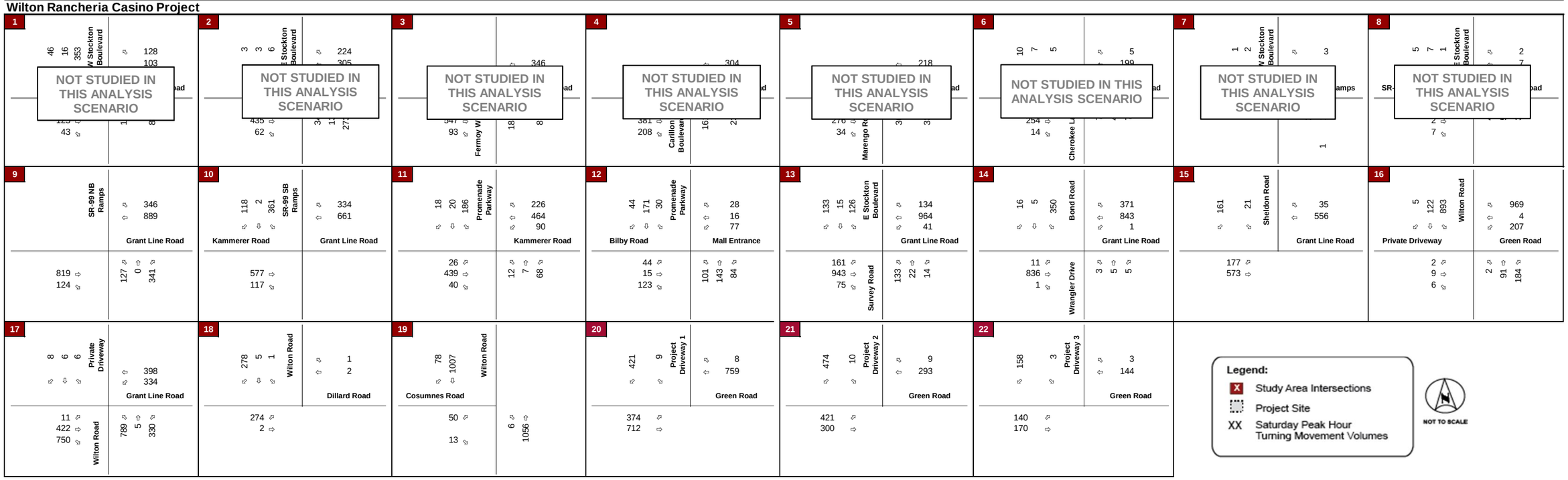
FIGURE 56

NEAR-TERM PLUS PROJECT ALTERNATIVE E WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



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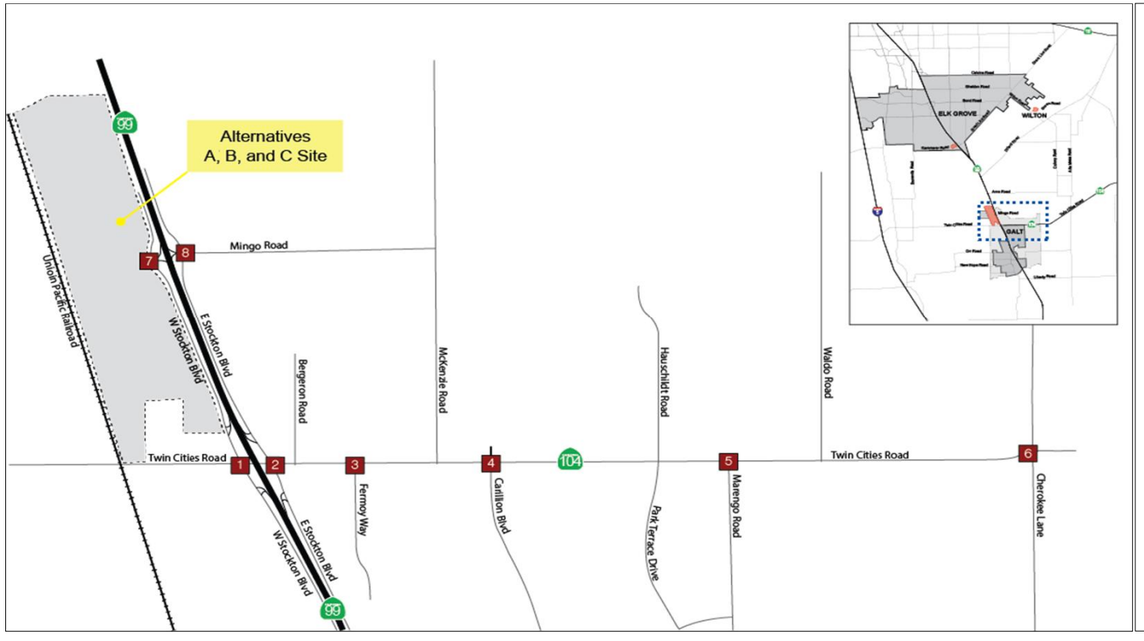

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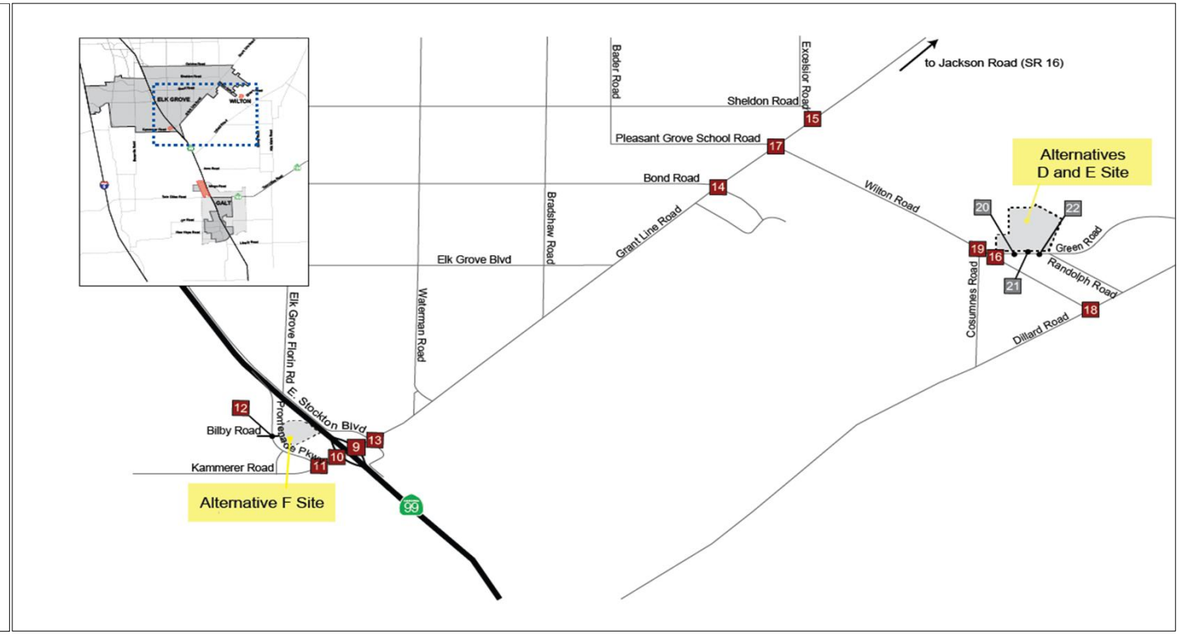

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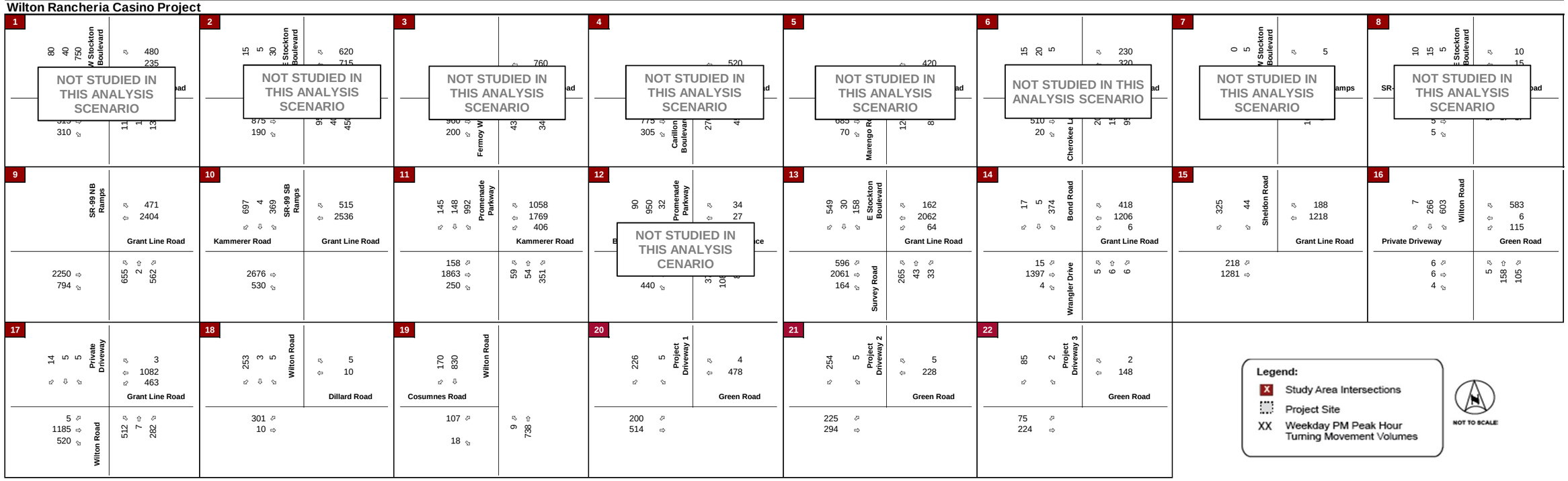
FIGURE 57

NEAR-TERM PLUS PROJECT ALTERNATIVE E SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Wilton Rancheria Casino Project



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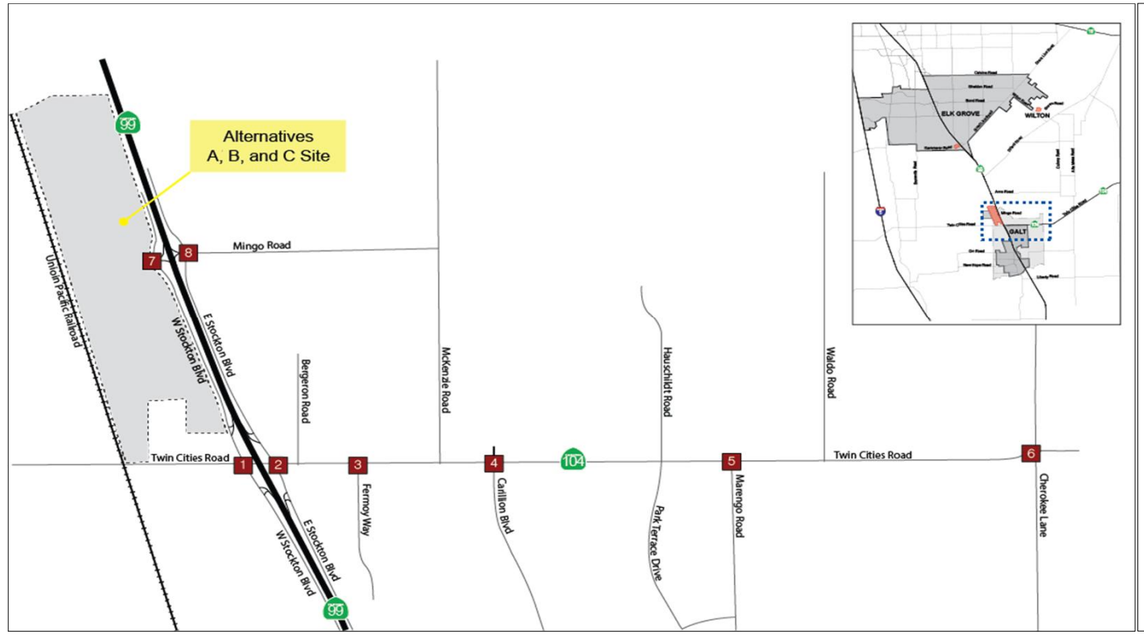

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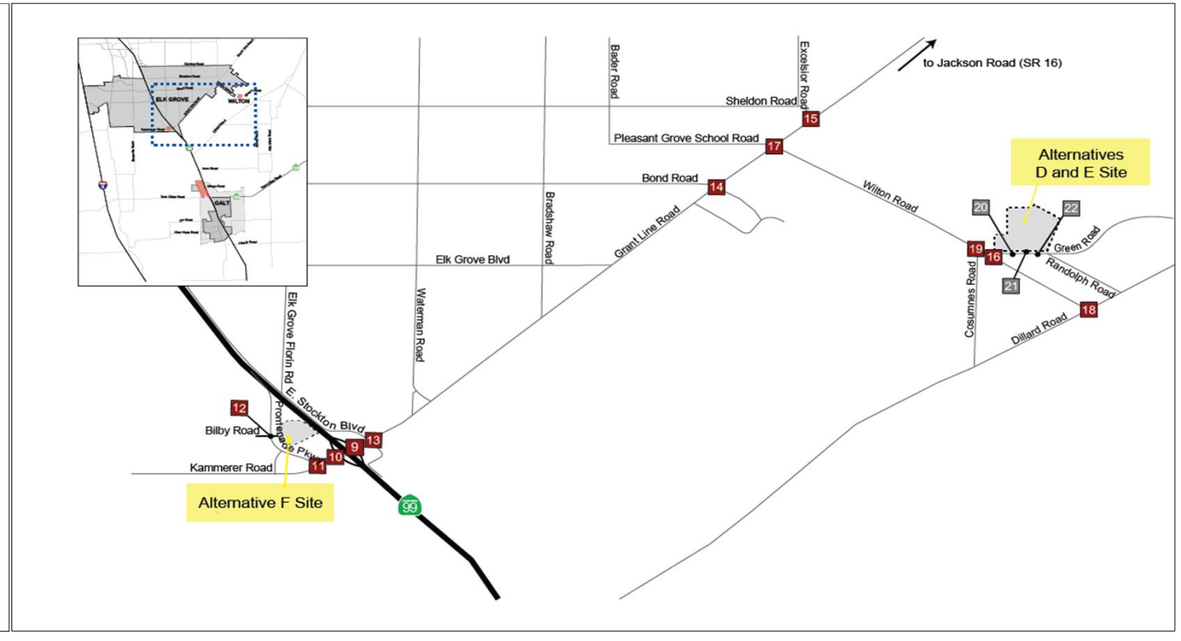
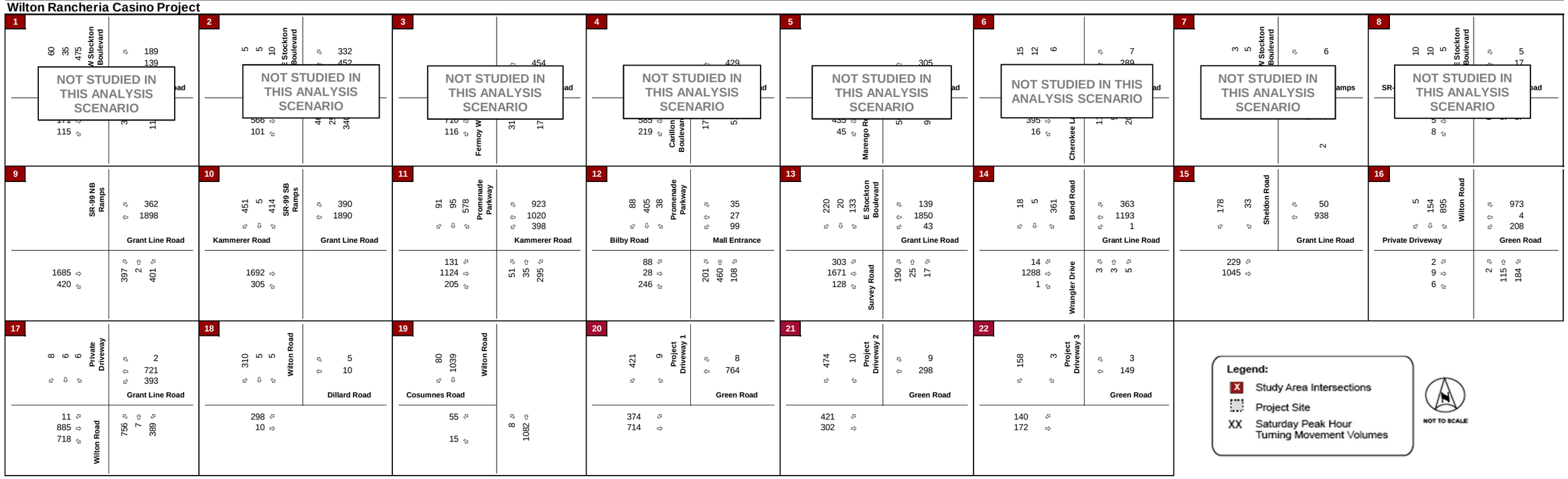


Wilton Rancheria Casino Project



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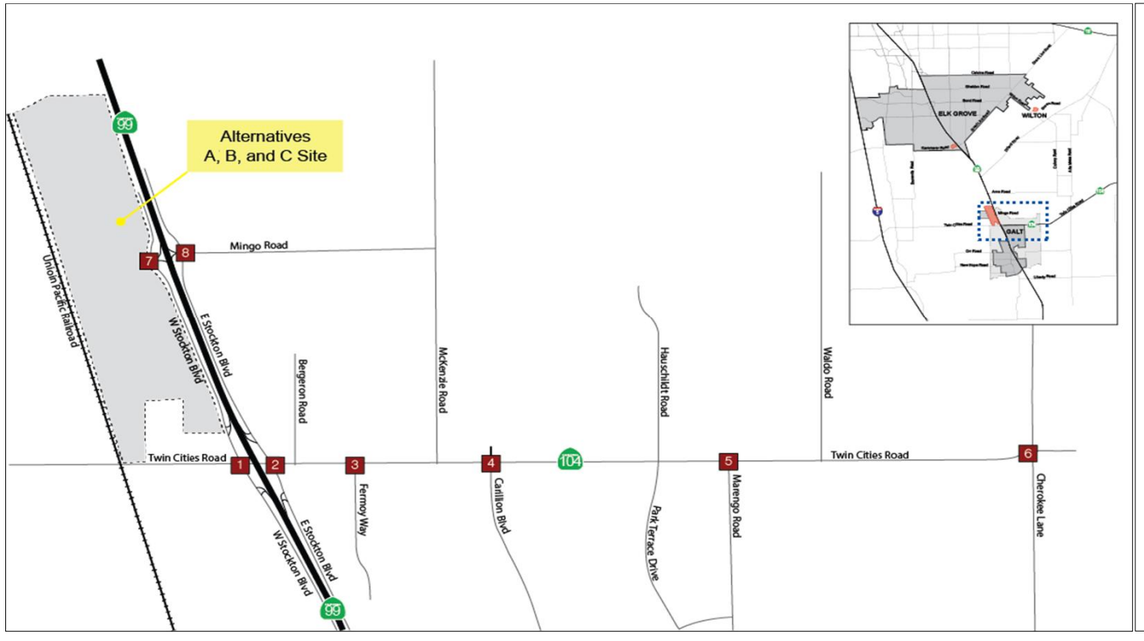
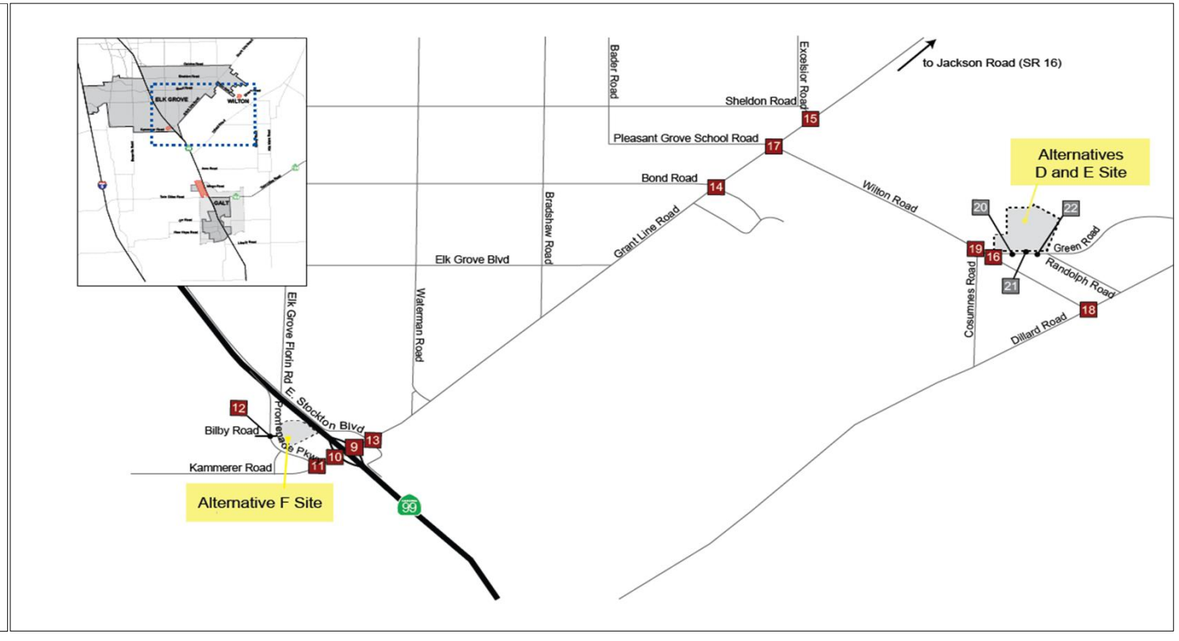


Vicinity Map (Intersections #9-22)



Kimley»Horn

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]HY+P-E-SAT Figure

FIGURE 59

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE E SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Table 70 – Alternative E Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	10.8	A	7.1
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	A	7.3	A	7.9
11	Promenade Parkway/Kammerer Rd	Signal	D	-	C	23.1	B	19.7	C	23.1	C	20.4
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	20.7	C	34.5	C	20.7	C	34.5
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2	**E**	**60.8**	C	32.3
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	D	47.2	D	40.1
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	C	23.1	B	14.0
16	Wilton Rd/Green Rd	AWSC	D	-	B	11.1	A	8.8	**F**	**145.3**	**F**	**341.3**
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	**F**	**188.8**	**F**	**314.0**
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	9.2	A	9.6
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	15.4	B	11.9	**F**	**86.1**	**F**	**179.4**
20	Green Road/Project Driveway 1	SSSC	D	SB	-	-	-	-	C	18.6	**F**	**403.5**
21	Green Road/Project Driveway 2	SSSC	D	SBL	-	-	-	-	C	23.0	**F**	**59.2**
22	Green Road/Project Driveway 3	SSSC	D	SB	-	-	-	-	A	9.6	B	10.2

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold.** Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

Table 71 – Alternative E Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	B	17.0	B	13.1
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	B	19.7	B	17.9
11	Promenade Parkway/Kammerer Rd	Signal	D	-	**F**	**87.5**	D	48.4	**F**	**97.1**	D	49.9
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	34.8	D	41.1	C	34.8	D	41.1
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**136.4**	**E**	**58.1**
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	C	33.8	C	29.6
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	16.5	B	12.2
16	Wilton Rd/Green Rd	AWSC	D	-	B	12.2	A	9.2	**F**	**168.9**	**F**	**358.3**
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	**F**	**130.3**	**F**	**193.7**
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	A	10.0	B	10.3
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	17.5	B	12.6	**F**	**132.6**	**F**	**246.1**
20	Green Road/Project Driveway 1	SSSC	D	SB	-	-	-	-	C	18.4	**F**	**411.6**
21	Green Road/Project Driveway 2	SSSC	D	SBL	-	-	-	-	C	19.9	**F**	**60.1**
22	Green Road/Project Driveway 3	SSSC	D	SB	-	-	-	-	A	9.6	B	10.2

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- Grant Line Road/East Stockton Boulevard
- Wilton Road/Green Road
- Grant Line Road/Wilton Road
- Wilton Road/Cosumnes Road
- Green Road/Project Driveway 1
- Green Road/Project Driveway 2

Cumulative (2035) Results

- Promenade Parkway/Kammerer Road
- Grant Line Road/East Stockton Boulevard
- Wilton Road/Green Road
- Grant Line Road/Wilton Road
- Wilton Road/Cosumnes Road
- Green Road/Project Driveway 1
- Green Road/Project Driveway 2

9.8 Alternative E LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 72** summarizes the near-term (2018) roadway segment levels of service. **Table 73** summarizes the cumulative (2035) roadway segment levels of service.

Table 72 – Alternative E Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**23,185**	**F**	+0	13,197	C	
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	7,060	A		4,019	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	95	A		144	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	9,077	A		4,915	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,596	A		4,113	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	6,871	A		3,721	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	12,312	D		11,431	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	12,675	A		11,744	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	27,367	A		22,912	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	26,949	C		22,961	B	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**25,395**	**F**	+0.185	**22,222**	**F**	+0.297
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**23,229**	**F**	+0.279	**22,104**	**F**	+0.448
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**21,006**	**F**	+0.075	**16,927**	**E**	+0.12
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**19,394**	**F**	+0.045	15,259	D	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	6,287	D		6,111	D	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	**16,353**	**E**	+0.279	**18,561**	**E**	+0.447
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	5,337	C		5,770	C	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	**12,103**	**E**	+0.469	**16,537**	**E**	+0.752
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,252	B		2,338	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 73 – Alternative E Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	25,055	B		14,261	A	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	9,495	A		5,404	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	102	A		155	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	30,240	A		16,374	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,460	B		12,162	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,659	A		10,103	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	34,356	B		30,439	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	36,262	B		32,083	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	**48,634**	**E**	+0.036	38,840	C	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	44,572	D		36,101	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	34,136	B		28,568	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	30,231	D		27,182	C	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	28,315	C		22,757	B	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	22,141	B		17,669	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	6,987	D		6,648	D	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	**16,270**	**E**	+0.279	**18,492**	**E**	+0.447
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	5,254	C		5,697	C	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	**12,269**	**E**	+0.469	**16,688**	**E**	+0.752
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,335	B		2,420	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

As shown in the tables, project traffic will add traffic to several roadway segments and result in levels of service that exceed the established impact thresholds at the following locations:

Near-Term (2018) Results

- Grant Line Road – Waterman Road to Bradshaw Road
- Grant Line Road – Bradshaw Road to Wilton Road
- Grant Line Road – Wilton Road to Calvine Road
- Wilton Road – Grant Line Road to Green Road
- Green Road – Wilton Road to project access driveways

Cumulative (2035) Results

- Grant Line Road – SR 99 to East Stockton Boulevard/Survey Road
- Wilton Road – Grant Line Road to Green Road
- Green Road – Wilton Road to project access driveways

The roadway segment analysis indicates that the segment of Grant Line Road from SR 99 to East Stockton Boulevard is anticipated to operate at unacceptable LOS E with the addition of the project trips for cumulative (2035) conditions. However, it should be noted that a significant portion of the westbound trips along Grant Line Road are turning right to access the NB SR 99 ramps just west of East Stockton Boulevard. The right-turn pocket connecting to the NB on-ramp extends over 400 feet to the east, essentially providing the capacity of a fourth travel lane in the westbound direction between East Stockton Boulevard and SR 99. For this reason, it is likely that the roadway segment analysis for this location provides an underestimate of the total capacity for this segment. Assuming an actual practical capacity that reflects a fourth travel lane in the westbound direction, this segment is anticipated to operate at acceptable LOS with the addition of the project traffic. Thus, no mitigation measures are recommended for this impact.

It should be noted that the segment of Twin Cities Road from Fermoy Way to Marengo Road is projected to operate at unacceptable LOS F for near-term conditions with and without the project. The project does not cause an increase in the roadway segment V/C ratio of 0.05 or more; thus, no project impact is identified at this location.

9.9 Alternative E LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project. As with the no project scenarios, freeway segment analyses were limited to the mix-use

travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 74** and **Table 75Table 75**, respectively.

Table 74 – Alternative E Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	30.8	4.1%	C	20.8	4.0%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	27.4	3.8%	C	20.9	4.5%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	28.5	4.0%	C	21.1	3.9%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	28.7	4.0%	C	21.2	4.4%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	29.0	4.3%	C	21.3	3.9%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	C	24.3	0.0%	C	21.7	0.0%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	22.7	3.7%	C	20.9	4.0%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.2	5.0%	C	20.8	5.6%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	27.5	1.1%	C	22.1	0.0%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	29.8	4.2%	C	22.3	4.2%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	D	32.8	4.8%	C	23.8	4.8%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	D	32.9	5.1%	C	23.5	3.1%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	27.4	4.6%	C	22.0	4.8%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	C	25.5	1.2%	C	21.8	0.9%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	C	24.7	0.8%	C	21.4	1.4%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	21.8	2.8%	C	20.7	3.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	24.6	4.7%	B	15.2	6.3%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 75 – Alternative E Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**35.3**	**E**	3%	27.8	C	4.1%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	29.6	D	3.5%	23.8	C	4.4%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	31.2	D	3.3%	24.9	C	4.2%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	31.2	D	3.3%	24.6	C	4.2%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	30.2	D	2.7%	23.8	C	3.5%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	33.8	D	3.4%	26.3	C	4.4%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**35.4**	**E**	2.9%	28.5	D	3.3%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	30.8	D	3.4%	23.5	C	4.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	32.7	D	3.2%	**37.7**	**E**	50.2%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	19.6	B	3.7%	18.0	B	4.0%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	C	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	22.9	C	0.9%	19.8	B	1.0%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 76** and **Table 77**, respectively.

Table 76 – Alternative E Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**E**	**40.9**	4.6%	**E**	**35.2**	4.5%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**E**	**40.8**	4.9%	**E**	**35.1**	4.5%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**47.4**	5.3%	**E**	**36.8**	4.5%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**47.7**	5.5%	**E**	**37.1**	4.8%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**48.6**	5.4%	**E**	**40.0**	4.7%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**37.8**	0.0%	**E**	**36.6**	0.8%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**38.9**	4.9%	D	34.9	4.2%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**38.1**	6.1%	D	36.6	6.1%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**49.5**	0.0%	**E**	**42.9**	0.0%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**54.7**	6.6%	**E**	**40.0**	5.3%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**57.5**	7.3%	**F**	**45.4**	6.1%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**57.7**	7.2%	**F**	**45.5**	6.1%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	28.8	4.7%	C	25.9	4.9%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	29.3	1.0%	D	26.1	1.2%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	C	25.0	0.8%	C	23.3	1.3%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	C	25.0	3.3%	C	24.1	3.4%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	28.1	4.5%	C	22.7	4.1%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 77 – Alternative E Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**45.8**	**F**	7%	**41.9**	**F**	7.2%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**39.2**	**F**	6.5%	**36.2**	**E**	6.8%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**41.8**	**F**	6.4%	**37.0**	**E**	6.9%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**39.8**	**E**	6.7%	**36.7**	**E**	7.0%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**39.5**	**F**	5.9%	**35.4**	**E**	6.3%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**44.3**	**F**	2.5%	**40.4**	**F**	2.8%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**44.9**	**F**	2.3%	**41.3**	**F**	2.5%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**41.3**	**F**	2.5%	**36.4**	**E**	2.5%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**42.1**	**F**	2.2%	**37.7**	**E**	2.2%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	30.6	D	4.1%	28.8	D	2.5%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	C	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	22.9	C	0.9%	21.5	C	0.9%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent (5%) with the addition of the project. Significant congestion is expected with and without the project.

9.10 Alternative E Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections with levels of service below established thresholds were investigated to determine the role of the Alternative E traffic in the projected operating conditions at those intersections. The evaluation disclosed that the following improvements as shown on **Table 78** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 78 – Alternative E Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	No mitigation necessary	-	-
12	Promenade Parkway/Bilby Rd	No mitigation necessary	-	-
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane.	No	• Capacity
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	• Realign Green Rd and Cosumnes Rd to form a single-point intersection. • Signalize intersection. Use protected left-turn signal phasing for NB/SB approaches. Use permitted left-turn phasing for EB/WB approaches. • Widen WB approach to provide one shared through-left and one right-turn lane. • Widen SB approach to two left-turn lanes and one shared through-right. • Provide WB right-turn overlap signal phase during SB left-turn phase.	Yes	• Capacity • Safety • Queuing
17	Grant Line Rd/Wilton Rd	• Widen EB approach to provide one left-turn lane, one through lane and one right-turn lane. • Widen NB approach to provide two left-turn lanes and one shared through-right lane.	Yes	• Capacity • Queuing
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	• See mitigation for Intersection #16		
20	Green Road/Project Driveway 1	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and one through lane. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
21	Green Road/Project Driveway 2	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and two through lanes. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
22	Green Road/Project Driveway 3	No mitigation necessary	-	-

Table 78 – Alternative E Summary of Mitigations (cont.)

Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	• Optimize signal timings.	No	• Capacity • Queuing
12	Promenade Parkway/Bilby Rd	No mitigation necessary	-	-
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane. • Convert NB/SB signal phasing from split to protected left-turn phasing. • Implement traffic signal coordination at this intersection to improve progression along Grant Line Rd with adjacent signalized intersections during weekday PM peak period.	No	• Capacity
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	• Realign Green Rd and Cosumnes Rd to form a single-point intersection. • Signalize intersection. Use protected left-turn signal phasing for NB/SB approaches. Use permitted left-turn phasing for EB/WB approaches. • Widen WB approach to provide one shared through-left and one right-turn lane. • Widen SB approach to two left-turn lanes and one shared through-right. • Provide WB right-turn overlap signal phase during SB left-turn phase.	Yes	• Capacity • Safety • Queuing
17	Grant Line Rd/Wilton Rd	• Widen EB approach to provide one left-turn lane, two through lanes and one right-turn lane. • Widen NB approach to provide two left-turn lanes and one shared through-right lane.	Yes	• Capacity • Queuing
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	• See mitigation for Intersection #16		
20	Green Road/Project Driveway 1	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and one through lane. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
21	Green Road/Project Driveway 2	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2. • Signalize intersection. • Widen EB approach to provide one left-turn lane and two through lanes. • Widen SB approach to provide one shared left-right turn lane and one right-turn lane.	Yes	• Capacity • Queuing
22	Green Road/Project Driveway 3	No mitigation necessary	-	-

Table 78 – Alternative E Summary of Mitigations (cont.)
Near-Term Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	No mitigation necessary	-	-
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	• Widen Grant Line Rd to four lanes from Waterman Rd to Jackson Rd	Yes	• Capacity
	Bradshaw Rd to Wilton Rd			
	Wilton Rd to Calvine Rd			
	Calvine Rd to Jackson Rd			
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	• Where feasible, widen Wilton Rd to four lanes between Grant Line Rd and Green Rd.	Yes	• Capacity
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2.	Yes	• Capacity
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

Table 78 – Alternative E Summary of Mitigations (cont.)
Cumulative Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	No mitigation necessary	-	-
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	No mitigation necessary	-	-
	Bradshaw Rd to Wilton Rd	No mitigation necessary	-	-
	Wilton Rd to Calvine Rd	No mitigation necessary	-	-
	Calvine Rd to Jackson Rd	No mitigation necessary	-	-
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	• Where feasible, widen Wilton Rd to four lanes between Grant Line Rd and Green Rd.	Yes	• Capacity
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	• Widen Green Rd to four lanes from Wilton Rd to Project Driveway #2.	Yes	• Capacity
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

The most significant component of the Alternative E mitigations are roadway and intersection improvements to facilitate sufficient ingress/egress to the project site from Wilton Road and Green Road. The existing streets and intersections within the vicinity of the Historic Rancheria site are predominantly designed with limited capacity to serve the existing low traffic demand in this rural area. Without mitigation, the traffic demand generated by the proposed project could not be accommodated by the existing street and intersection capacity. The proposed mitigation measures include the realignment of Green Road and Cosumnes Road at Wilton Road to form a single-point signalized intersection. Green Road would be widened to four lanes from Wilton Road to the central project access driveway and partial widening of Wilton Road to provide additional travel lanes or passing lanes, where feasible, would be recommended north of Green Road to Grant Line Road.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities and Mingo interchanges, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at

the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 11% based on standard Caltrans methodology for calculating equitable mitigation measures.

Table 79 and **Table 80** summarize the expected intersection levels of service with the proposed mitigation measures.

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Table 79 – Alternative E Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	10.8	A	7.1	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	A	7.3	A	7.9	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	C	23.1	B	19.7	C	23.1	C	20.4	-	-	-	-
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	20.7	C	34.5	C	20.7	C	34.5	-	-	-	-
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**60.8**	C	32.3	D	51.5	D	35.3
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	D	47.2	D	40.1	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	C	23.1	B	14.0	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	11.1	A	8.8	**F**	**145.3**	**F**	**341.3**	B	10.8	B	16.3
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	**F**	**188.8**	**F**	**314.0**	D	47.6	D	46.4
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	9.2	A	9.6	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	15.4	B	11.9	**F**	**86.1**	**F**	**179.4**	N/A			
20	Green Road/Project Driveway 1	-	0	0.0	0.00	0.0	-	-	-	-	C	18.6	**F**	**403.5**	A	8.5	B	13.4
21	Green Road/Project Driveway 2	-	0	0.0	0.00	0.0	-	-	-	-	C	23.0	**F**	**59.2**	A	9.2	B	15.0
22	Green Road/Project Driveway 3	-	0	0.0	0.00	0.0	-	-	-	-	A	9.6	B	10.2	-	-	-	-

Table 80 – Alternative E Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	B	17.0	B	13.1	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	B	19.7	B	17.9	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	**F**	**87.5**	D	48.4	**F**	**97.1**	D	49.9	**F**	**83.8**	D	38.9
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	34.8	D	41.1	C	34.8	D	41.1	-	-	-	-
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**136.4**	**E**	**58.1**	**F**	**87.7**	D	51.8
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	C	33.8	C	29.6	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	16.5	B	12.2	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	12.2	A	9.2	**F**	**168.9**	**F**	**358.3**	B	12.0	B	17.4
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	**F**	**130.3**	**F**	**193.7**	D	46.9	D	44.1
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	A	10.0	B	10.3	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	17.5	B	12.6	**F**	**132.6**	**F**	**246.1**	N/A			
20	Green Road/Project Driveway 1	-	0	0.0	0.00	0.0	-	-	-	-	C	18.4	**F**	**411.6**	A	8.8	B	13.4
21	Green Road/Project Driveway 2	-	0	0.0	0.00	0.0	-	-	-	-	C	19.9	**F**	**60.1**	A	9.7	B	15.1
22	Green Road/Project Driveway 3	-	0	0.0	0.00	0.0	-	-	-	-	A	9.6	B	10.2	-	-	-	-

As noted in the tables, with the recommended mitigation measures, all study intersections would operate at acceptable levels of service or at reduced levels where the project traffic would not exceed the established thresholds of significance. The Promenade Parkway/Kammerer Road and Grant Line Road/East Stockton Boulevard intersections would continue to operate at unacceptable LOS after mitigation for 2035 weekday PM peak conditions, but the average control delay would be reduced to below conditions without the project.

In addition, the recommended roadway mitigation measures would result in acceptable levels of service for impacted roadway segments.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Project Alternative E is anticipated to add up to 2,500 vehicle trips per day to Dillard Road between SR-99 and Wilton Road, which represents about a 68 percent increase over the projected near-term traffic volumes along this segment. Per County staff, the existing PCI for this roadway ranges from 61-97, which represents fair condition; however, there are currently no shoulders along a significant portion of this roadway segment. Between SR-99 and Wilton Road, the project should be responsible for improving Dillard Road to the County's Improvement Standard with a minimum 36-foot paved section, with 12-foot lanes, and 6-foot shoulders.

Wilton Road from Green Road to Dillard Road currently has no shoulders. The project is anticipated to add about 2,500 new daily trips to this segment, which represents about a 75 percent increase over the projected near-term traffic volumes along this segment. Between Green Road and Dillard Road, the project should be responsible for improving Wilton Road to the County's Improvement Standard with a continuous center turn lane. This would require a 48-foot paved section, with 12-foot lanes, a 12-foot two-way left-turn lane, and 6-foot shoulders.

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are little-to-no sidewalks, trails or designated bicycle facilities within the vicinity of the proposed project site; thus the project would not inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site.

Because no fixed route transit service will be available at the project site, the casino and hotel should provide a shuttle that provides service to locations with connections to existing transit services in the City of Elk Grove. The shuttle could run throughout the day or could be called out on demand.

9.11 Alternative E VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative E is summarized in **Table 81**.

Table 81 – Alternative E VMT

Alternative E - Reduced Intensity Casino at Rancheria Site							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	31%	29.3	8,770	256,961	14,058	411,899
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	45%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	19%					

9.12 Alternative E Construction Traffic Impacts

Impacts resulting from the construction of Alternative E would be temporary in nature. Construction activity impacts would be concentrated on Green Road in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.
- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays

10. ALTERNATIVE F – CASINO RESORT AT MALL SITE

Alternative F represents the evaluation of traffic conditions with the construction of the proposed casino and hotel at the Elk Grove Mall site. The alternative includes evaluation of traffic during two horizon years. The first horizon, the near-term (2018) scenario, corresponds with the year of the proposed opening of the casino and hotel. The second horizon, the long-term cumulative (2035) scenario, corresponds to the long-term build out year and available local and regional traffic forecast.

10.1 Proposed Site Uses

The Alternative F casino and hotel is proposed to be located in the as shown in **Figure 1**, just northwest west of SR 99 and Kammerer Road/Grant Line Road interchange. Road near Mingo Road. This site is located in the City of Elk Grove, within the site of the previously planned Elk Grove Promenade mall development. While the previously-approved Promenade development stalled due to economic challenges, another developer has since purchased the Promenade property with plans to develop the site as an outlet retail center.

Figure 60 shows the proposed layout of the casino and hotel facility. As seen in the figure, the buildings and other related facilities are located in the northern portion of the parcel, which currently includes predominantly agricultural uses.

The project site includes a main casino building area of approximately 381,000 square feet, which includes casino gaming area, restaurants, food court, event center, banquet facilities, lobby, back of house and other ancillary functions. In addition, the project is planned to include up to 307 hotel rooms, primarily for casino guests. For the purposes of the traffic analysis, the key components of the proposed project are summarized as follows:

- Casino Building Area – 381,000 s.f.
- Gaming Floor Area – 110,260 s.f.
- Gaming Positions – 2,104 positions.
- Convention Area – 47,000 s.f.
- Hotel Rooms – 307 Rooms

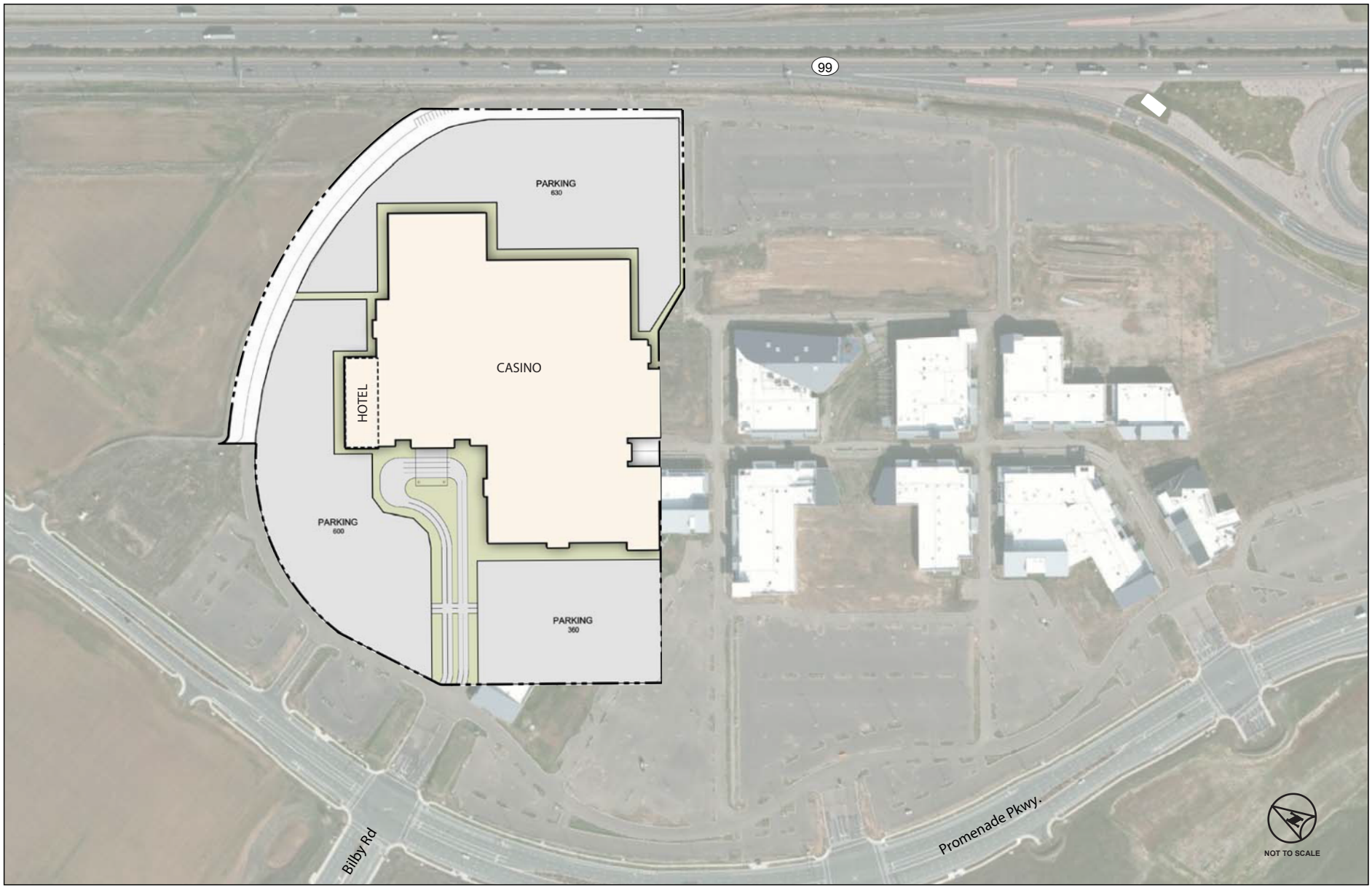

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Figure 60

Alternative F Site Plan

10.2 Site Access

Access to the Mall Site is provided from Promenade Parkway, located northwest of the SR 99/Grant Line Road-Kammerer Road interchange. The main project access driveway is at the east leg of the Bilby Road/North Mall Entrance signalized intersection (Intersection #12). An additional right-in/right-out only driveway provides access to the site just north of the main entrance. For the purposes of this analysis, the project access driveways are assumed to retain the current lane configurations and traffic control with the addition of the proposed project.

10.3 Project Trip Generation

Project trip generation for Alternative F was calculated using the assumptions and methodologies described in the Alternative A section and is shown in **Table 82**. As discussed in the Alternative A trip generation section, a diverted link trip reduction of 10% is assumed for Alternative F due to close proximity to SR 99.

As seen in the table, the project is expected to generate 11,093 new weekday trips, 16,003 new Saturday trips, 1,198 new trips in the weekday PM peak hour and 2,056 new trips in the Saturday PM peak hour.

Table 82 – Alternative F Project Trip Generation

Land Use	ITE Code	Quantity	Units	Weekday Daily	Weekday PM Peak Hour			Saturday Daily	Saturday Peak Hour		
					In	Out	Total		In	Out	Total
Casino	N/A	110,260	SF Gaming Floor Area	9,041	510	575	1,085	14,493	954	1,075	2,029
Diverted Link Trips (10%) [4]				(904)	(54)	(54)	(108)	(1,449)	(102)	(101)	(203)
Convention Area[5]	N/A	3,130	Seats	2,330	140	35	175	2,330	140	35	175
Hotel	310	307	Rooms	626	23	23	46	629	31	24	55
Net New Vehicle Trips				**11,093**	**619**	**579**	**1,198**	**16,003**	**1,023**	**1,033**	**2,056**

SF -Square Feet; GFA - Gaming Floor Area

Casino[2]

Weekday Daily	T = 82.00 x (1000's of SF GFA)	50% In	50% Out
Saturday Daily	T = 131.44 x (1000's of SF GFA)	50% In	50% Out
Weekday PM Peak Hour	T = 9.84 x (1000's of SF GFA)	47% In	53% Out
Saturday Peak Hour	T = 18.40 x (1000's of SF GFA)	47% In	53% Out

Hotel (ITE 9th Edition)[6]

Weekday Daily (ITE 310)	T = 8.17 x (Rooms)	50% In	50% Out
Saturday Daily (ITE 310)	T = 8.19 x (Rooms)	50% In	50% Out
Weekday PM Peak Hour (ITE 310)	T = 0.15 x (Rooms)	51% In	49% Out
Saturday Peak Hour (ITE 310)	T = 0.18 x (Rooms)	56% In	44% Out

Notes:

(1) Source of Land Use Information: *EIS Scoping Report for Wilton Rancheria Fee-to-Trust and Casino Project* (February 2014) and subsequent correspondance with Analytical Environmental Services

(2) Peak hour casino trip generation rates based on surveyed existing trip generation for existing Thunder Valley Casino. Reference: *Draft Existing Conditions Traffic Study - Thunder Valley Casino Expansion Project (Kimley-Horn and Associates, Inc., 2005).* Daily trip generation rates for casino uses were not presented in the Thunder Valley Casino Study; thus, daily rates were estimated based on an average PM peak hour/Daily trip generation ratio documented in published traffic studies for other comprable tribal casino projects in northern California. The final Daily trip generation rates are predominantly consistent with trip rates used for simililar projects in other tribal casino studies and with the daily customer and employee totals projected for the proposed project.

(3) The proposed casino facility includes other auxiliary/internal uses in addition to gaming area, such as restaurants, back of house, lounges, etc. However, only the casino gaming floor area (GFA) is used as the independent variable for the purposes of estimating trip generation. This is because the trip generation rates use GFA as the independent variable, and were developed based on empirical data from similar existing casino facilities, and include the trips associated with all of the casino uses (gaming areas, restaurants, lounges, back of house, etc.), excluding hotel facilities and convention space.

(4) The project site is located adjacent to State Route 99, which carries over 70,000 vehicles per day. For the purposes of this analysis, the base daily and peak hour trip generation estimates are adjusted based on an average diverted link rate of 10%. This adjustment is likely conservative and is within the range identified by Caltrans' guidance for pass-by/diverted link trip reductions for retail-oriented development (Caltrans Guide for the Preparation of Traffic Impact Studies, 2002). Because the average traffic volumes for streets adjacent to the project site are very low, no pass-by reductions are applied to the casino trip generation estimates.

(5) Trip generation for the proposed 47,000 s.f. convention area was developed based on the estimated number of attendees. The maximmum number of event attendees/seats was estimated to be 3,130 people, based on an average of 15 s.f. per attendee, which is consistent with industry best practices for conference/event space planning. For the purposes of this traffic analysis, an 85th percentile event is assumed (2,661 attendees), which represents an event with attendance equal or greater than 85% of all the planned events at this location. It is assumed that when convention/meeting activities are scheduled, 25% of the 302 on-site hotel rooms would be occupied by event attendees with an average occupancy of 1.3 attendees per room; thus 98 event attendees would stay on-site, and not drive to/from an event. The remaining attendees (2,563) would drive to the site. Assuming an average auto occupancy of 2.2 people per vehicle, approximately 1,165 vehicles would attend an 85th percentile event. The majority of event trips are anticipated to occur outside of the PM peak traffic period (4:00 PM to 6:00 PM), as events typically have a start time between 7:00 PM and 8:00 PM. Based on review of other available traffic studies for tribal gaming facilities, it was assumed that 15% of event attendees would arrive during the peak hour.

(6) Trip rates for Hotel based on ITE *Trip Generation Manual , 9th Edition.* Trip generation rate reduced by 75% to account for internal capture to/from casino.

10.4 Project Trip Distribution and Assignment

The trip distribution for Alternative F was developed using the methodologies discussed previously for Alternative A. Much of the casino project trips are expected to travel to/from SR-99 with origins/destinations in Elk Grove, Sacramento to the north, eastern Sacramento County and El Dorado County to the northeast, and Lodi and Stockton to the south. Based on the likely customer and employee base for the site and orientation of the regional roadway network, it was estimated that approximately 42% of the project traffic would be distributed to destinations north of the site via SR-99. Approximately 17% of the project traffic would be distributed to Elk Grove and about 8.5% would be distributed to eastern Sacramento County and El Dorado County via Grant Line Road. Approximately 13.5% of the project trips would be distributed to I-5 and destinations west of the site via Grant Line Road/Kammerer Road. Approximately19% of the project traffic distributed to destinations south of the site via SR 99. **Figure 61** illustrates project traffic assigned to the study area based on the assumed trip distribution for Alternative F.

Figure 62 and **Figure 63** show the Alternative F project traffic assignment for near-term weekday and Saturday PM peak hour conditions. **Figure 64** and **Figure 65** show the Alternative F project traffic assignment for long-term cumulative (2035) weekday and Saturday PM peak hour conditions.

10.5 Near-Term Plus Project Traffic Volumes

Near-term 2018 traffic volumes were combined with vehicle trips expected to be generated by the Alternative F project. **Figure 66** and **Figure 67** illustrate the combined near-term turning movement volumes at the study intersections.

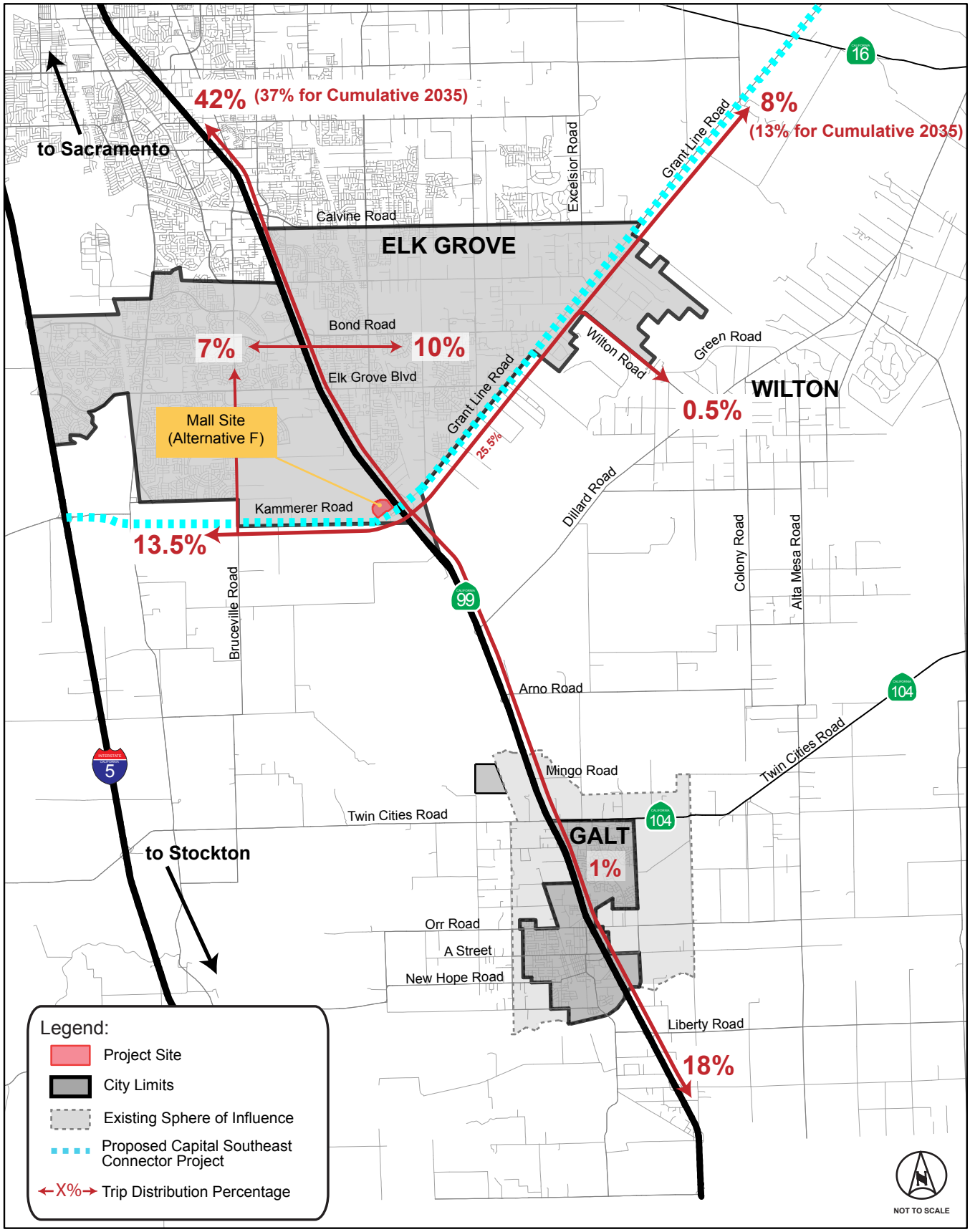
10.6 Long-Term Plus Project Traffic Volumes

Long-term cumulative 2035 traffic volumes were combined with vehicle trips expected to be generated by the Alternative F project. **Figure 68** and **Figure 69** illustrate the combined cumulative 2035 turning movement volumes at the study intersections.

10.7 Alternative F LOS Conditions and Impacts at Intersections

Traffic operations were evaluated for near-term conditions (2018) and long-term cumulative conditions with Alternative F (year 2035).

Results of the analysis are presented in **Table 83** and **Table 84**, respectively. Additional detail is provided in the **Appendix**.



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Fi gure 61

Project Trip Distribution - Mall Site (Alternative F)

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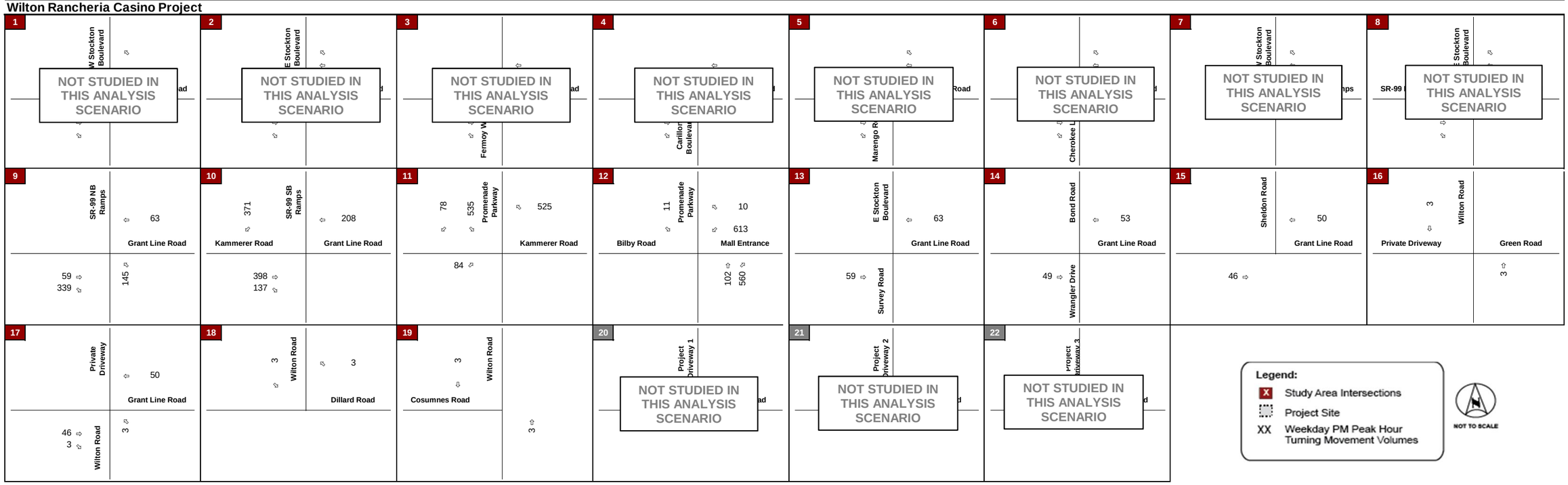
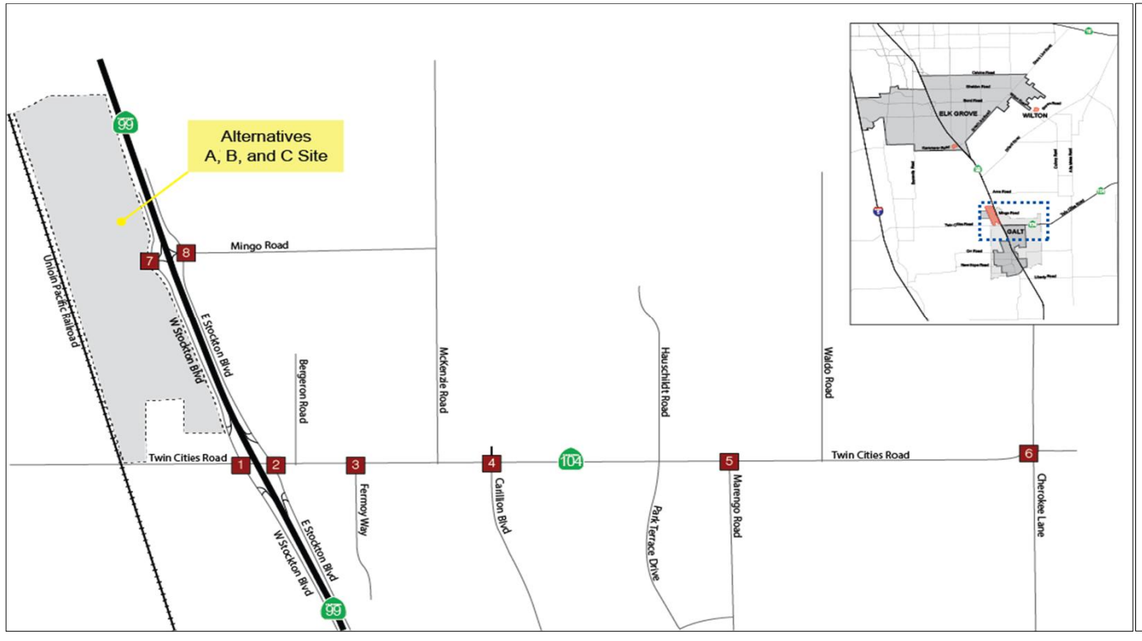
Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



Vicinity Map (Intersections #9-22)

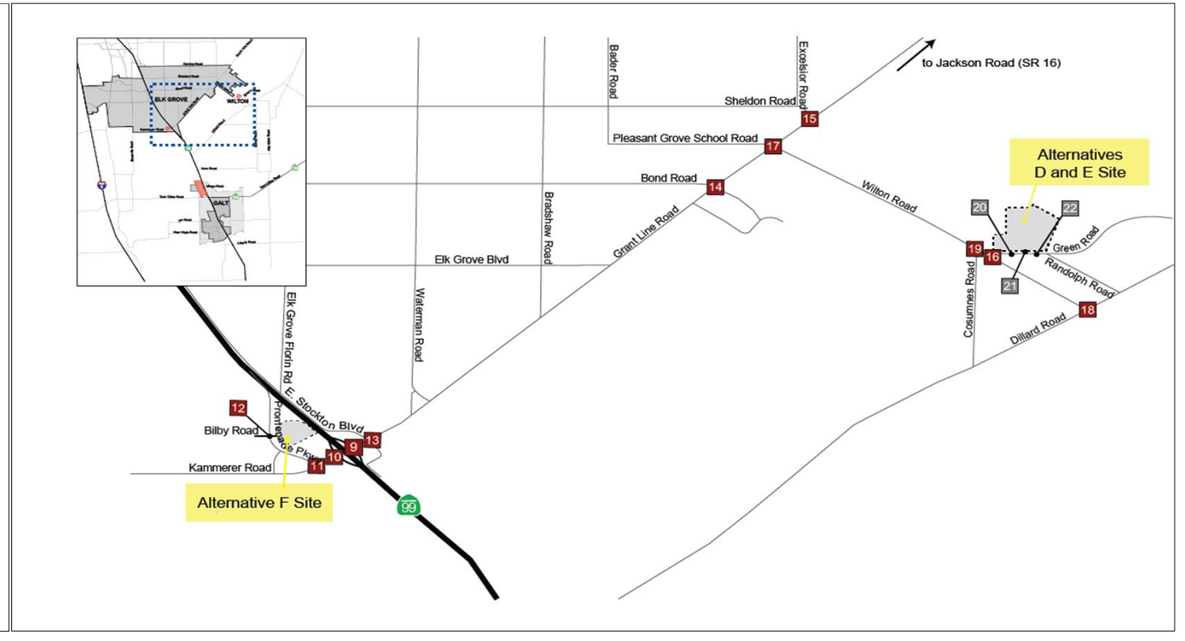


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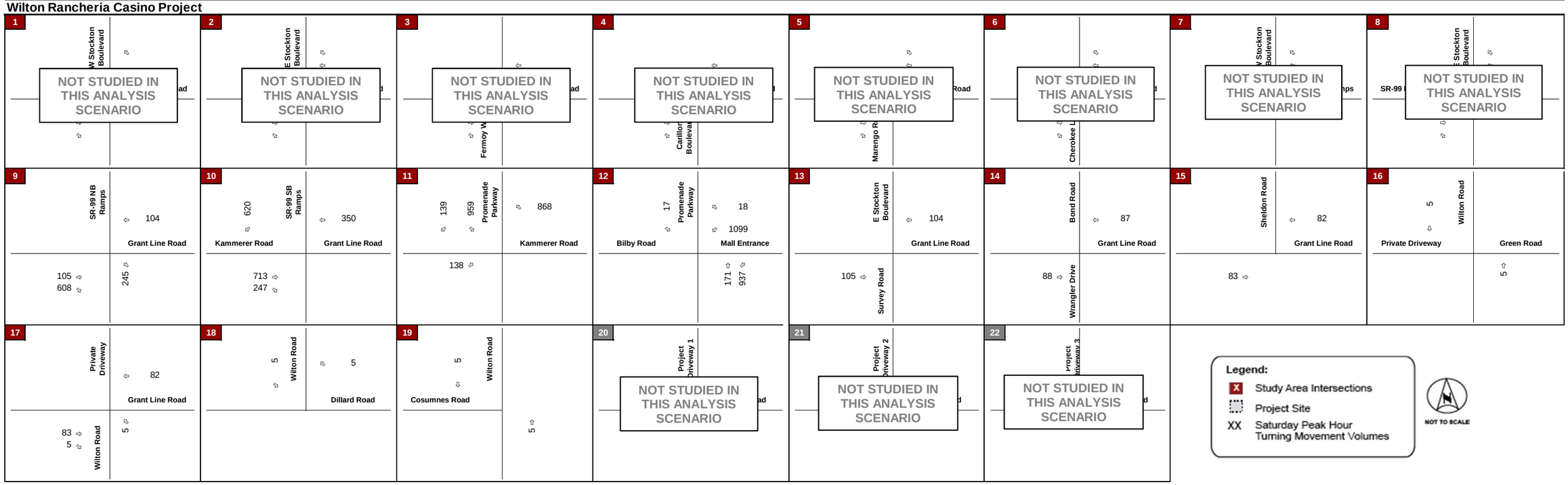
FIGURE 62

ALTERNATIVE F - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



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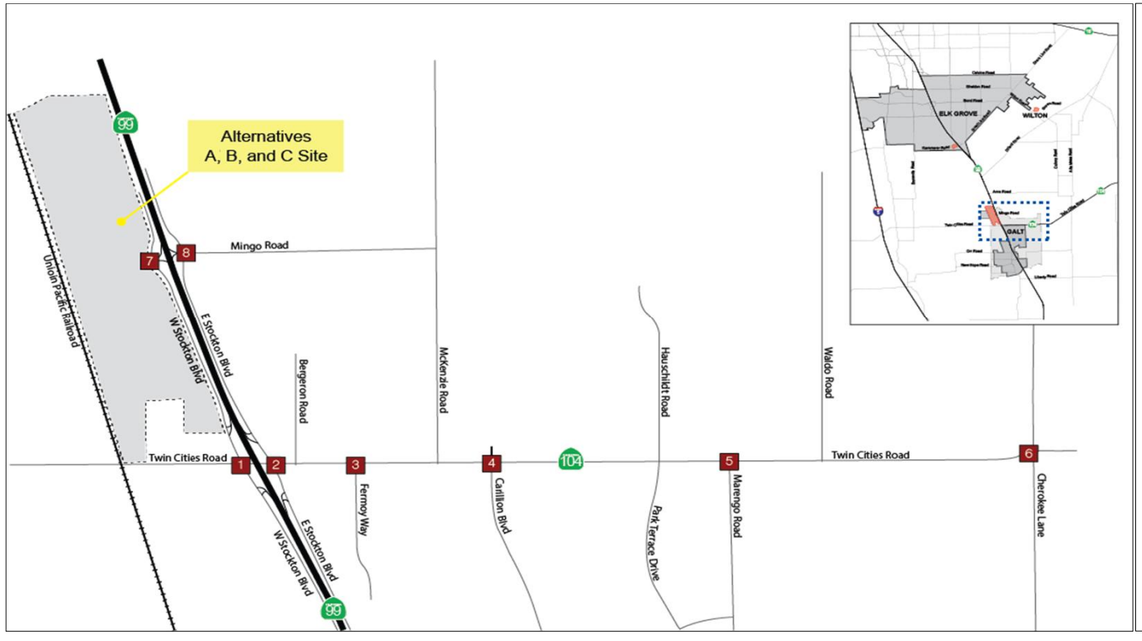

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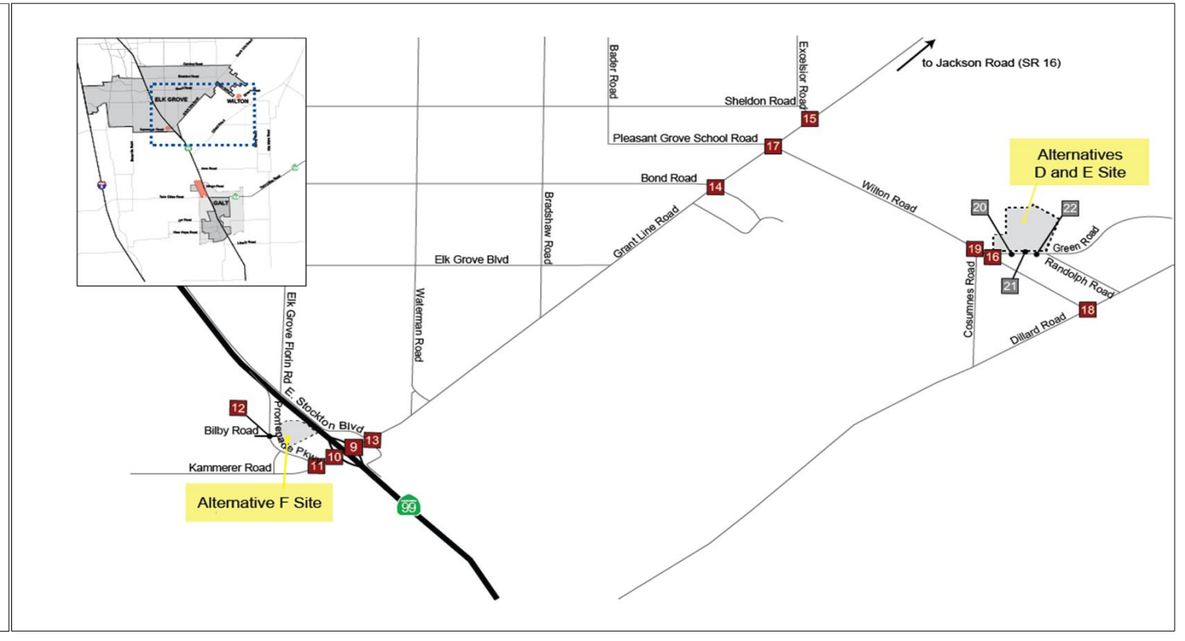

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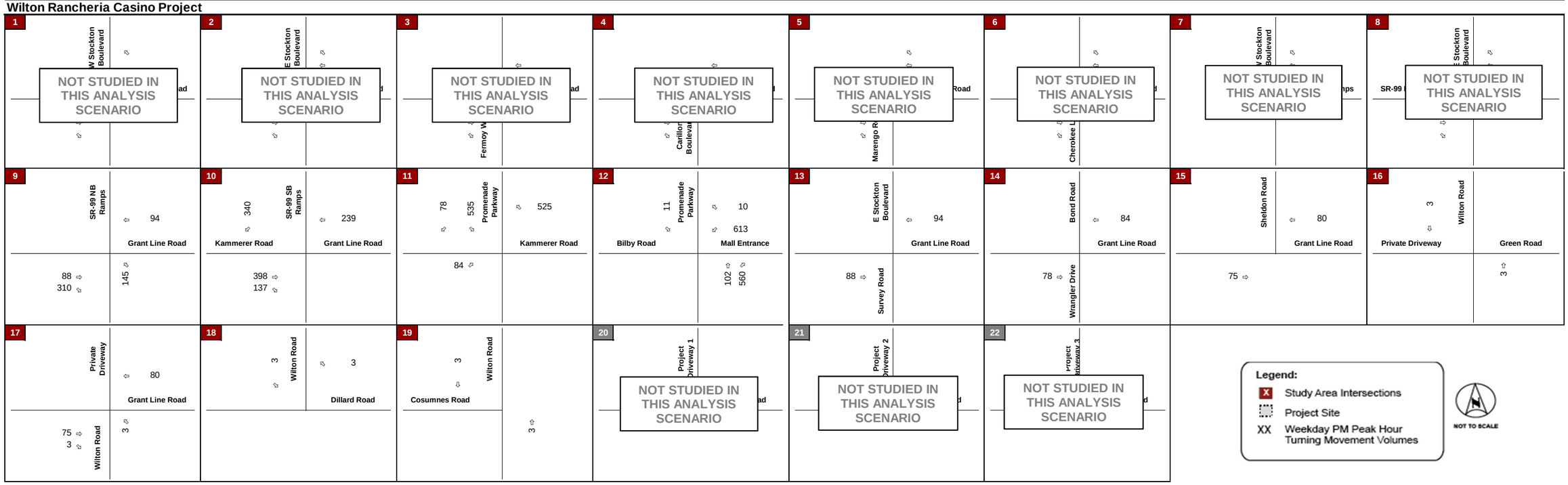
FIGURE 63

ALTERNATIVE F - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (NEAR-TERM)

Wilton Rancheria Casino Project



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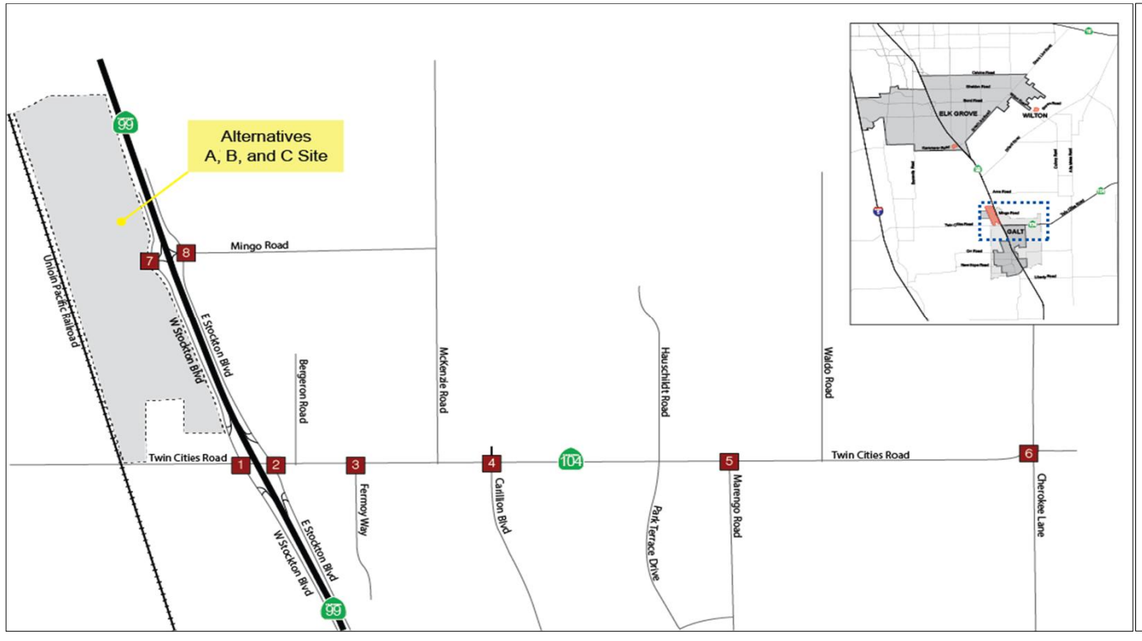

Vicinity Map (Intersections #9-22)

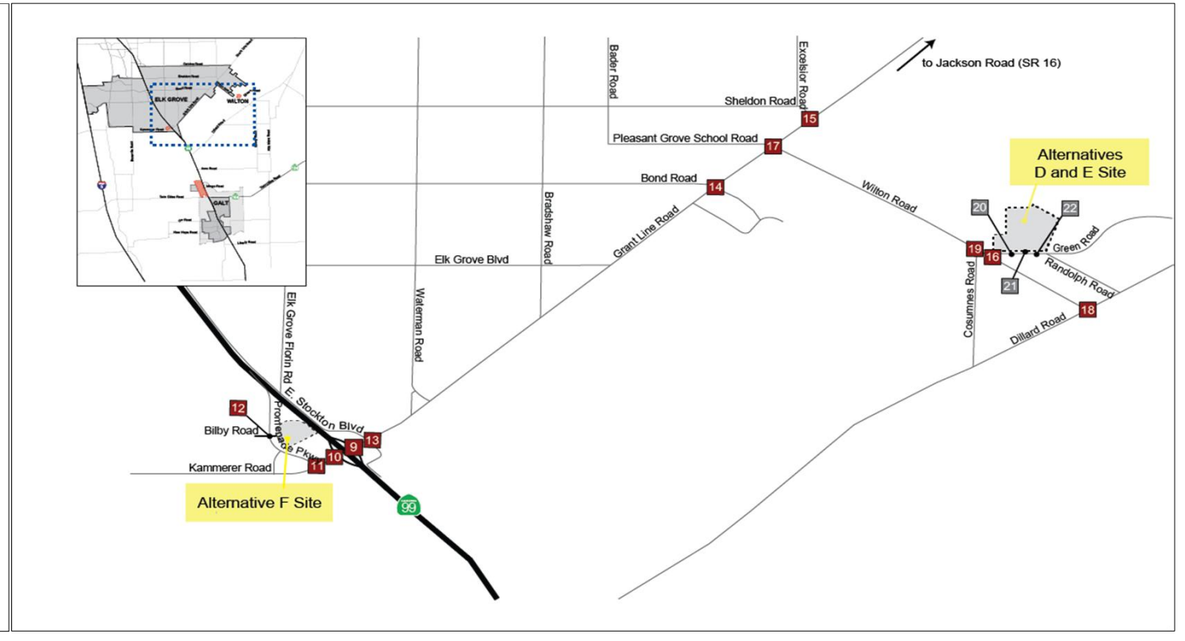

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FIGURE 64

ALTERNATIVE F - WEEKDAY PM PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

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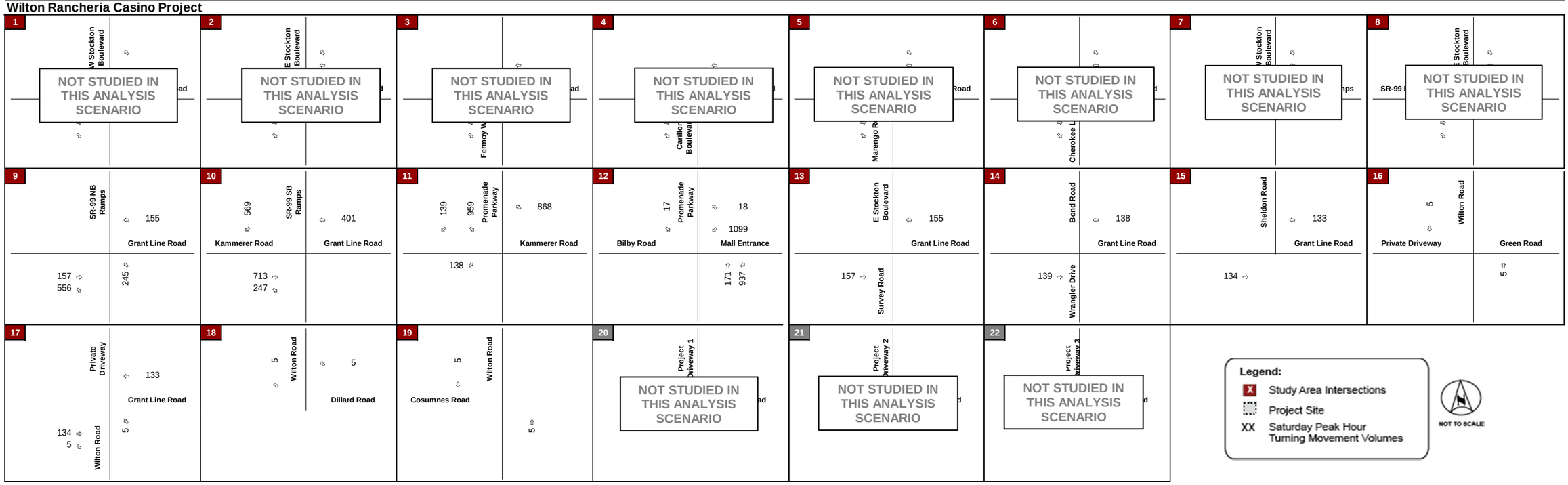
Wilton Rancheria Casino Project



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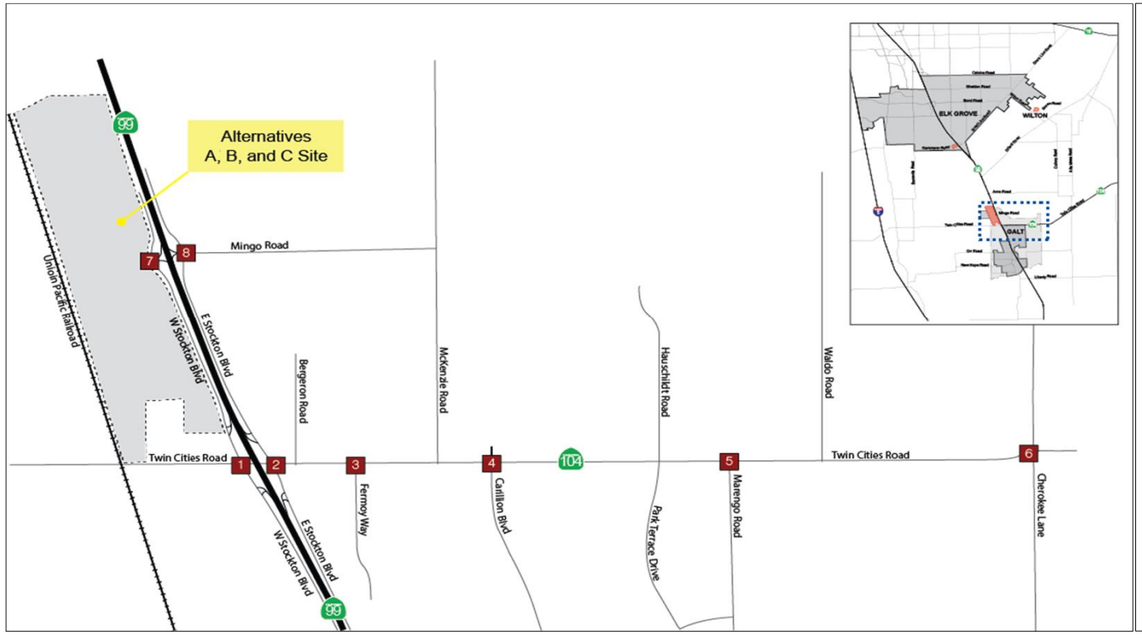

Vicinity Map (Intersections #9-22)

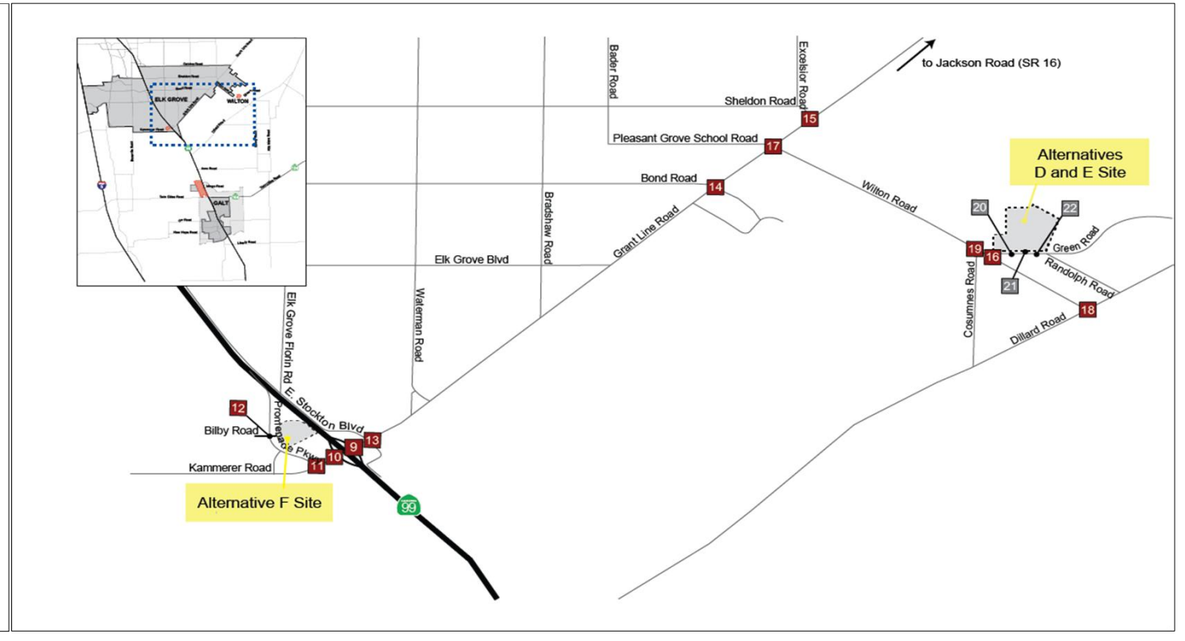

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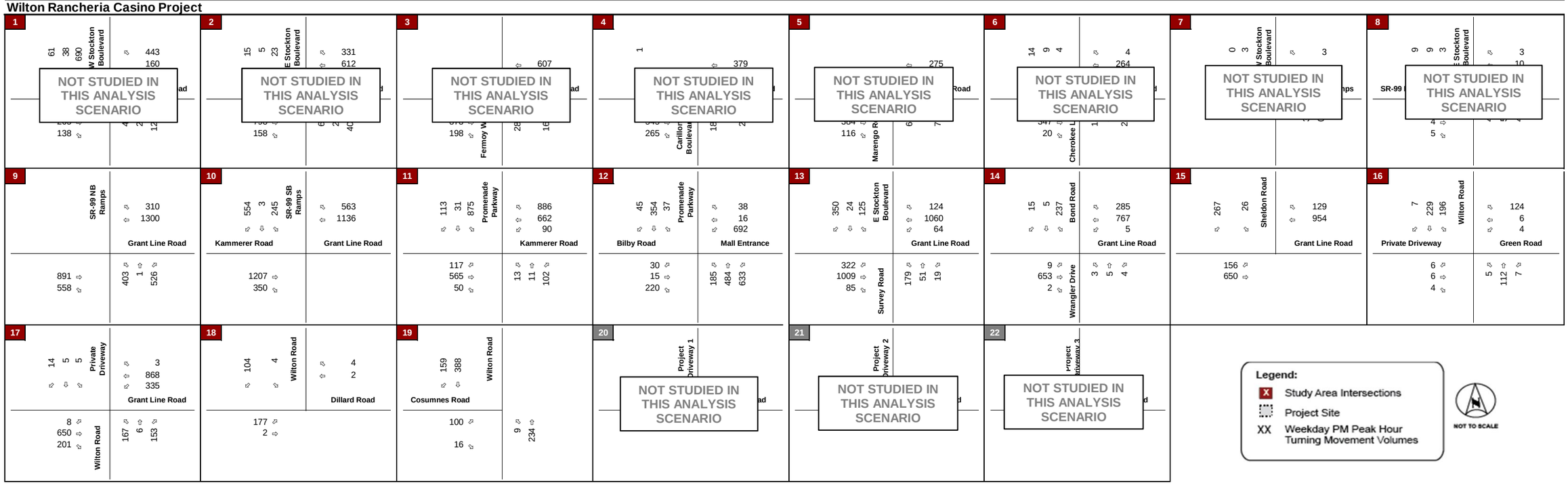
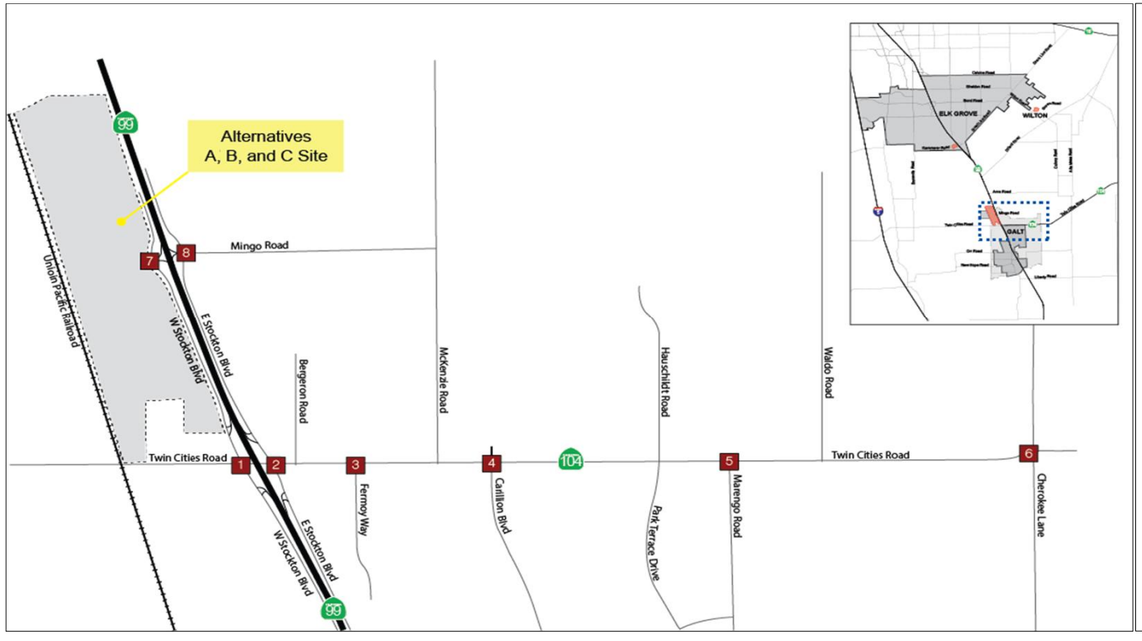
FIGURE 65

ALTERNATIVE F - SATURDAY PEAK HOUR PROJECT TRIP ASSIGNMENT (CUMULATIVE)

Wilton Rancheria Casino Project



Vicinity Map (Intersections #1-8)



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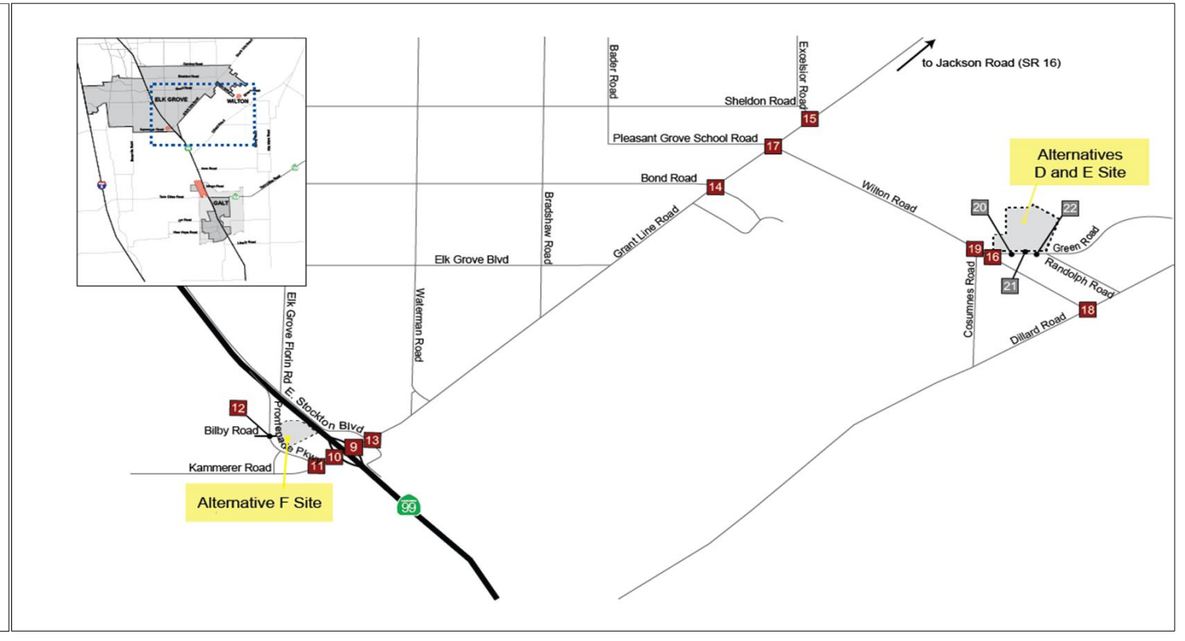

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FIGURE 66

NEAR-TERM PLUS PROJECT ALTERNATIVE F WEEKDAY PM PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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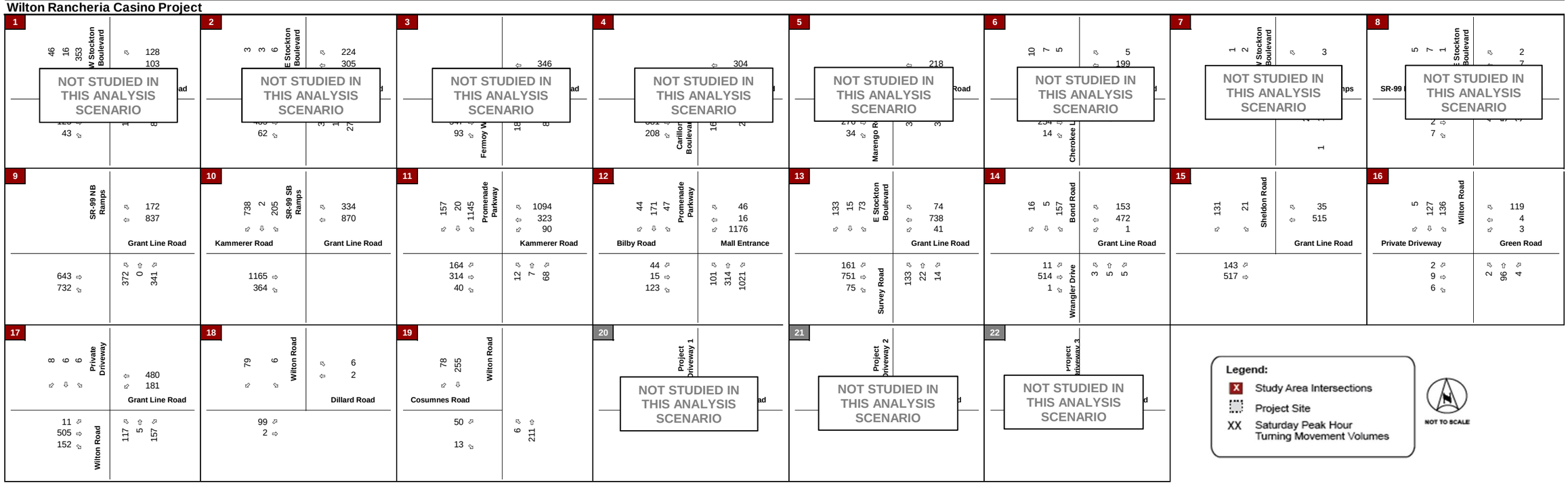
Wilton Rancheria Casino Project



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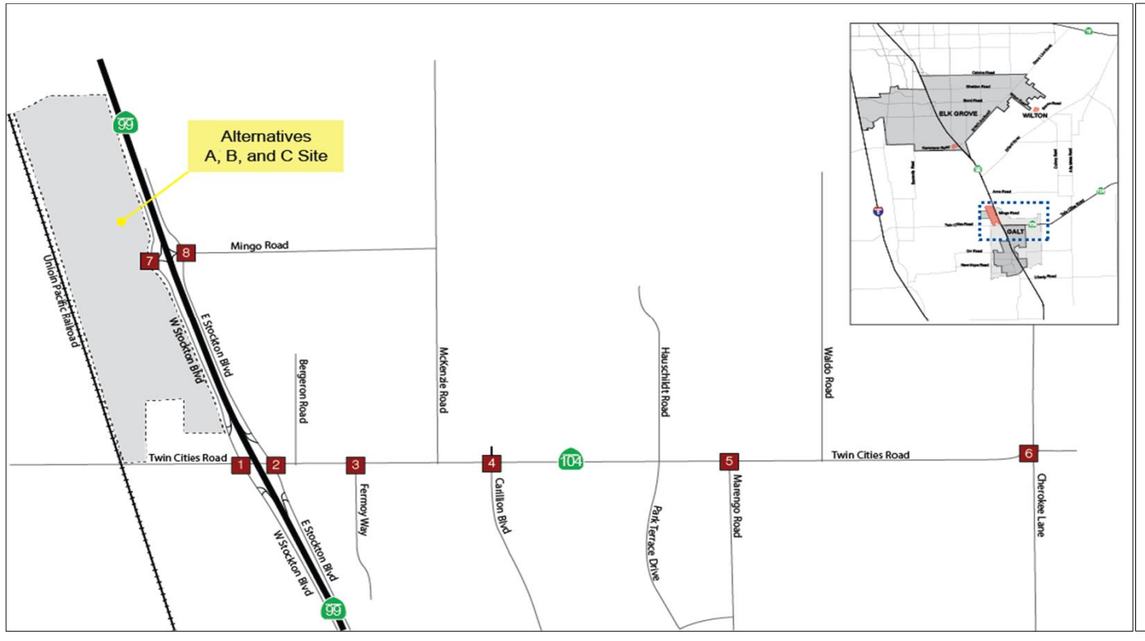

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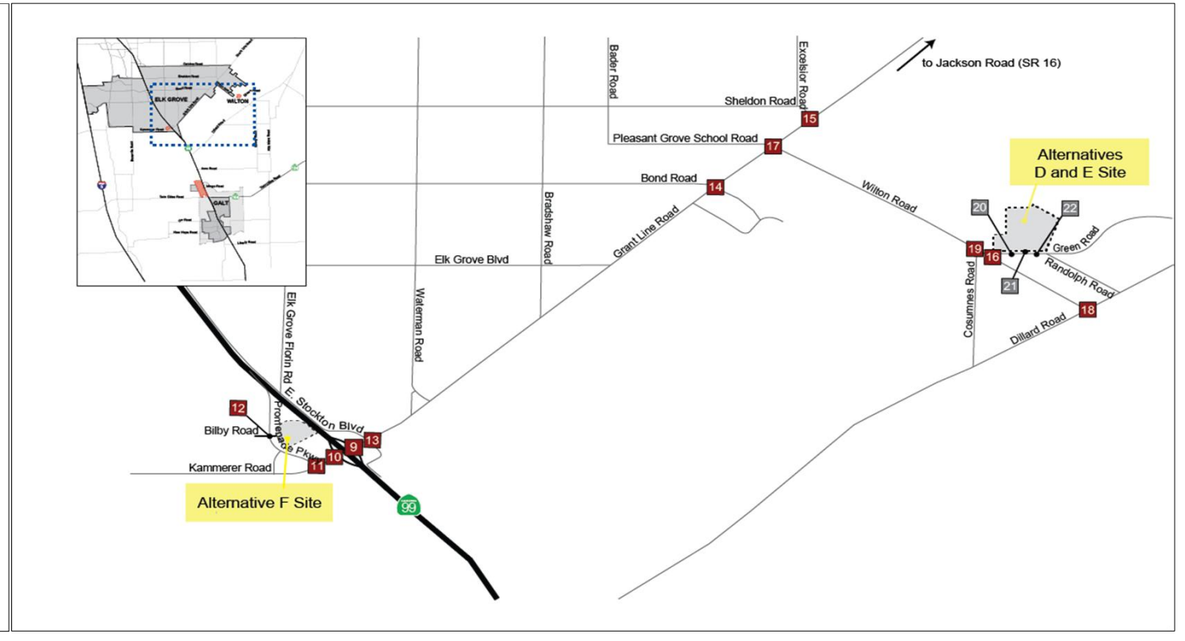

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FIGURE 67

NEAR-TERM PLUS PROJECT ALTERNATIVE F SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

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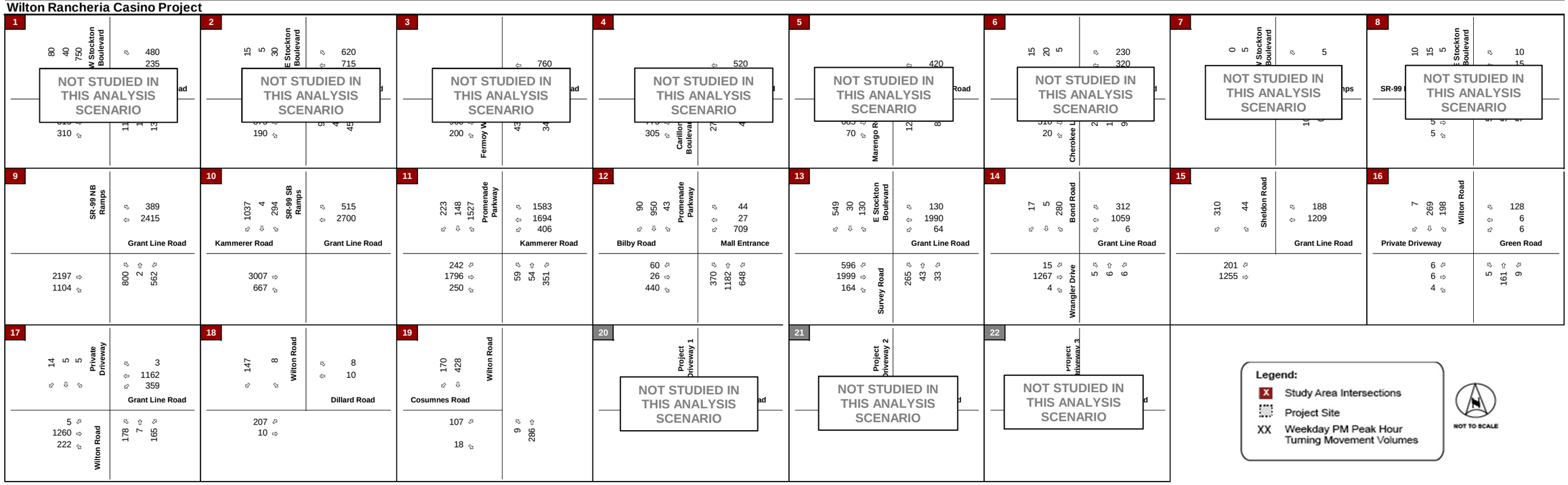
Wilton Rancheria Casino Project



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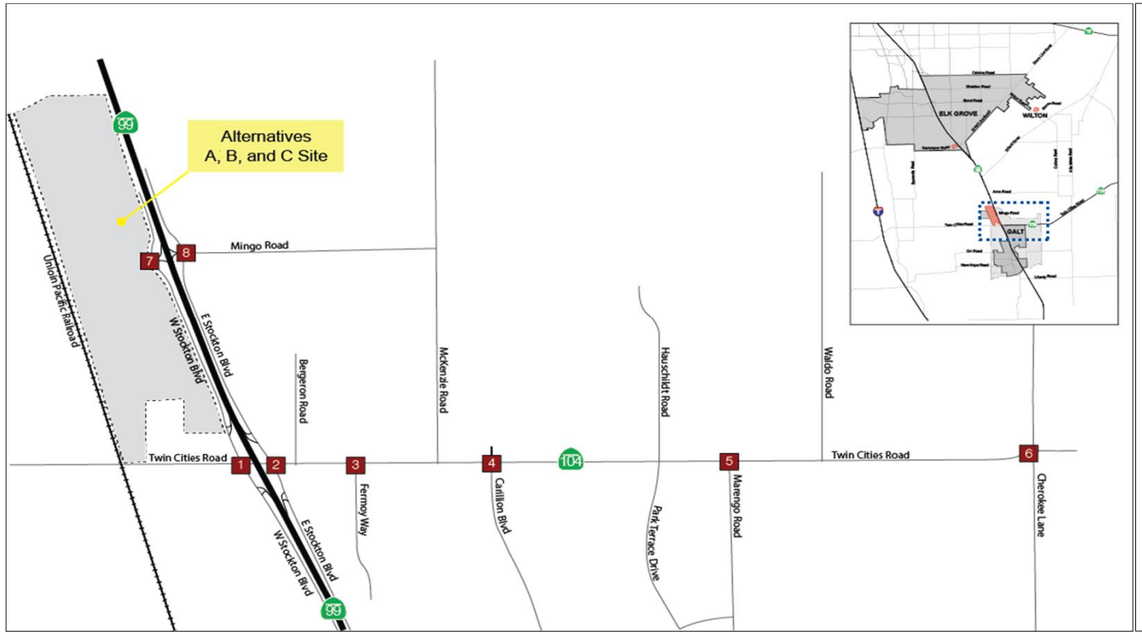

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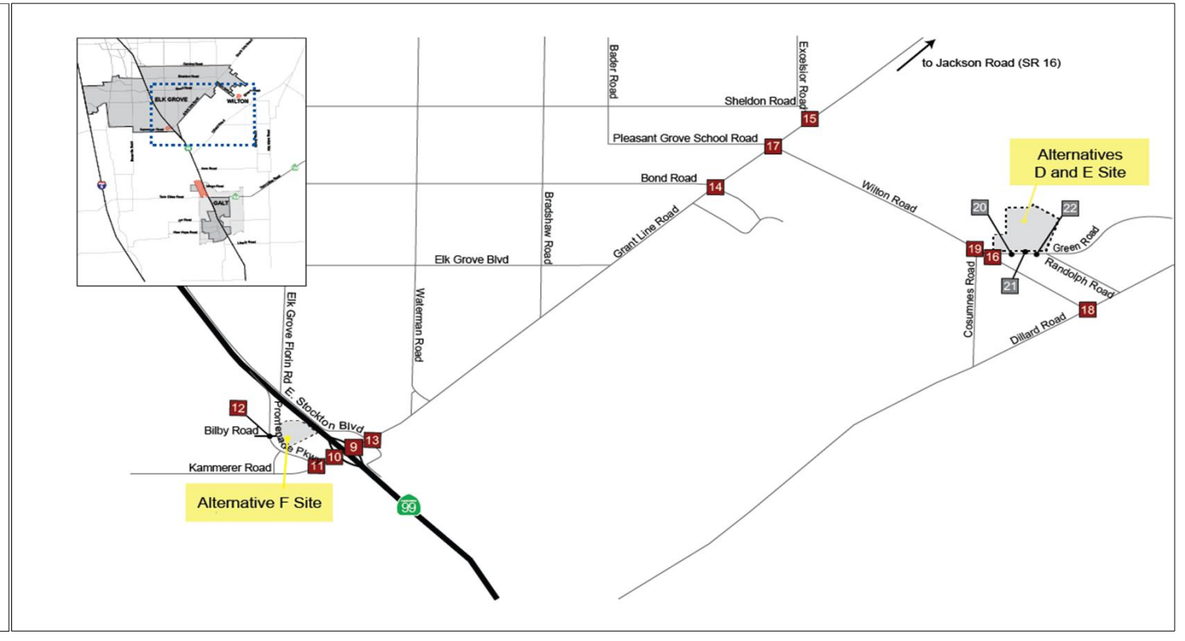
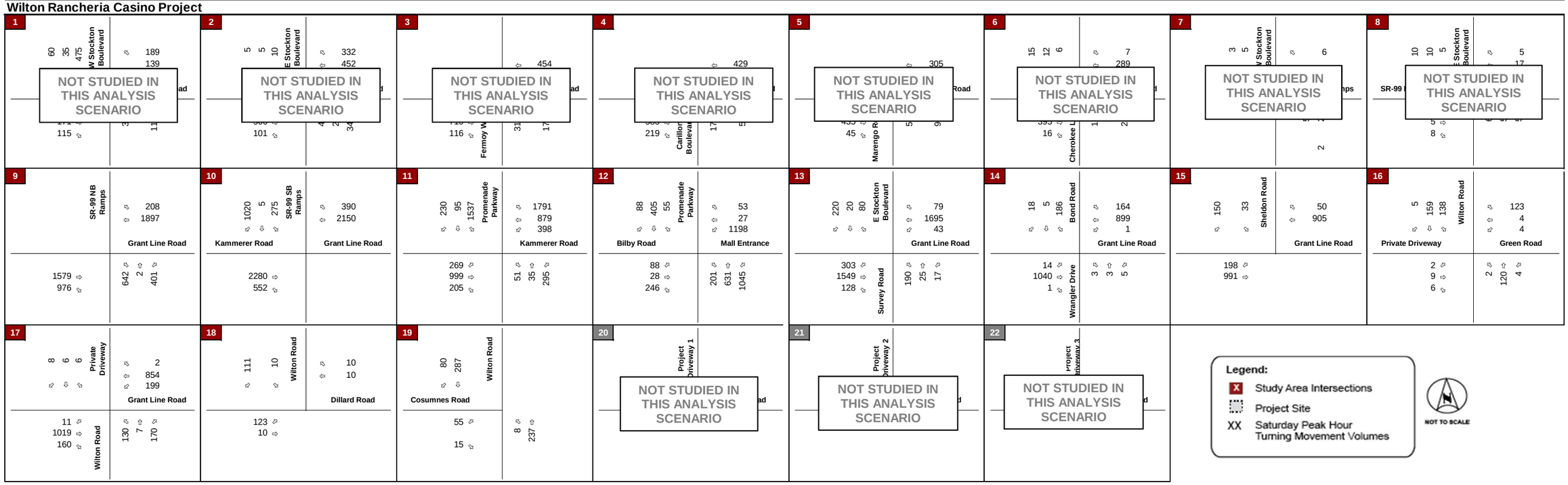


Wilton Rancheria Casino Project



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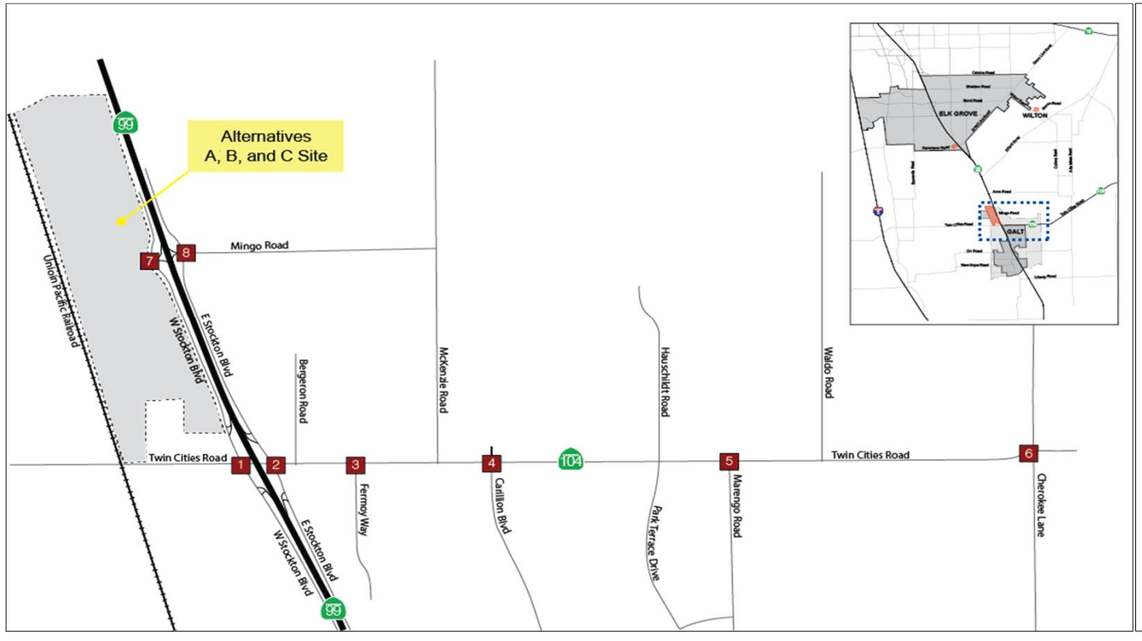
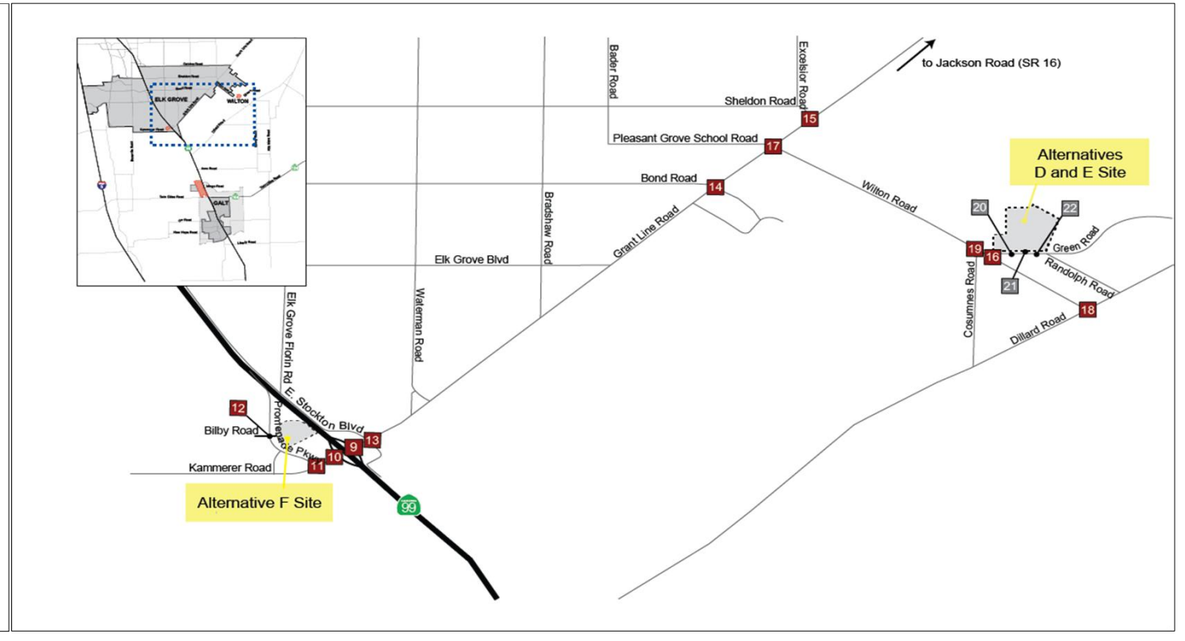


Vicinity Map (Intersections #9-22)



Kimley»Horn

C:\Users\luke.schwartz\Desktop\Work Docs\Wilton\Analysis\Excel\[097360007TA02.xlsm]HY+P-F-SAT Figure

FIGURE 69

CUMULATIVE (2035) PLUS PROJECT ALTERNATIVE F SATURDAY PEAK HOUR INTERSECTION TURNING MOVEMENT VOLUMES

Table 83 – Alternative F Intersection Levels of Service (Near-Term)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	AWSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	10.6	A	6.8	B	13.0	A	8.9
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	A	6.3	A	6.6	B	10.5	B	14.8
11	Promenade Parkway/Kammerer Rd	Signal	D	-	C	23.1	B	19.7	D	40.0	C	22.3
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	20.7	C	34.5	C	32.9	**F**	**211.9**
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**E**	**55.7**	C	28.2	**E**	**57.3**	C	28.8
14	Grant Line Rd/Bond Rd	Signal	D	-	C	22.9	B	19.2	C	23.7	C	20.7
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	19.8	B	11.4	C	20.8	B	11.8
16	Wilton Rd/Green Rd	AWSC	D	-	B	11.1	A	8.8	B	11.2	A	8.9
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	50.9	C	23.5	D	53.4	C	25.2
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.0	A	7.4	A	8.1	A	7.4
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	15.4	B	11.9	C	15.5	B	12.0
20	Green Road/Project Driveway 1	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold.** Project impacts highlighted.
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

Table 84 – Alternative F Intersection Levels of Service (Cumulative)

#	Intersection	Intersection Control	LOS Target	Critical Approach/ Movement[2]	Without Project				With Project			
					PM Peak		SAT Peak		PM Peak		SAT Peak	
					LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
2	E Stockton Blvd/Twin Cities Rd	Roundabout	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
3	Twin Cities Rd/Fermoy Way	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
4	Twin Cities Rd/Carillon Blvd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
5	Twin Cities Rd/Marengo Rd	Signal	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
6	Twin Cities Rd/Cherokee Ln	SSSC	D	NB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	SSSC	D	WB	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	SSSC	D	NBT	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
9	SR-99 NB Ramps/Grant Line Rd	Signal	D	-	B	16.6	B	12.4	C	26.3	C	20.9
10	SR-99 SB Ramps/Grant Line Rd	Signal	D	-	B	18.3	B	14.5	**E**	**65.3**	D	47.0
11	Promenade Parkway/Kammerer Rd	Signal	D	-	**F**	**87.5**	D	48.4	**F**	**127.6**	**F**	**127.1**
12	Promenade Parkway/Bilby Rd	Signal	D	-	C	34.8	D	41.1	**F**	**286.9**	**F**	**847.7**
13	Grant Line Rd/E Stockton Blvd	Signal	D	-	**F**	**117.6**	D	45.4	**F**	**126.1**	D	47.0
14	Grant Line Rd/Bond Rd	Signal	D	-	C	24.4	B	18.6	C	24.2	B	19.4
15	Grant Line Rd/Sheldon Rd	Signal	D	-	B	14.4	B	11.3	B	15.1	B	11.5
16	Wilton Rd/Green Rd	AWSC	D	-	B	12.2	A	9.2	B	12.3	A	9.3
17	Grant Line Rd/Wilton Rd	Signal	D	-	D	45.3	C	21.7	D	45.8	C	22.7
18	Wilton Rd/Dillard Rd	AWSC	D	-	A	8.5	A	7.7	A	8.5	A	7.7
19	Wilton Rd/Cosumnes Rd	SSSC	D	EB	C	17.5	B	12.6	C	17.7	B	12.7
20	Green Road/Project Driveway 1	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
21	Green Road/Project Driveway 2	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							
22	Green Road/Project Driveway 3	SSSC	D	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE							

Notes:

1. SSSC = Side-Street Stop-Control; Signal = Signalized; AWSC - All-Way Stop-Control
2. Delay represents w orst minor street approach movement for SSSC intersections. Delay represents average intersection delay for AWSC, signalized intersections and roundabouts.
3. Intersections operating below established LOS target show n in **Bold**
4. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound; L = Left; R = Right; T = Through

As shown in the results, the following intersections will fail to meet acceptable level of service thresholds based on established significance criteria and with the addition of project-related traffic:

Near-Term (2018) Results

- Promenade Parkway/Bilby Road

Cumulative (2035) Results

- SR 99 SB Ramps/Grant Line Road
- Promenade Parkway/Kammerer Road
- Promenade Parkway/Bilby Road
- Grant Line Road/East Stockton Boulevard

It should be noted that the intersection of Grant Line Road/East Stockton Boulevard is projected to operate at unacceptable LOS E without the project and will continue to operate at LOS E with the addition of the project for Near-Term conditions. However, the project does not increase the average control delay at the intersection by five (5) seconds or more; thus, no project-related impact is identified at this location for Near-Term conditions based on the established significance criteria.

10.8 Alternative F LOS Conditions and Impacts on Roadway Segments

Trips generated by the proposed project were added to the year 2018 and 2035 forecast roadway segment volumes and study roadway segment levels of service were evaluated. **Table 85** summarizes the near-term (2018) roadway segment levels of service. **Table 86** summarizes the cumulative (2035) roadway segment levels of service.

Table 85 – Alternative F Roadway Segment Levels of Service (Near-Term)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	2	**23,185**	**F**	13,197	C	**23,185**	**F**	+0	13,197	C	
Twin Cities Road	West of SR-99	D	2	7,060	A	4,019	A	7,060	A		4,019	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	472	A	529	A	472	A		529	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	95	A	144	A	95	A		144	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	9,077	A	4,915	A	19,883	A		20,504	A	
	Bilby Rd to Kyler Rd	D	4	7,596	A	4,113	A	7,884	A		4,529	A	
	Kyler Rd to Whitelock Pkwy	D	2	6,871	A	3,721	A	7,159	A		4,137	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	2	11,214	D	9,670	D	12,712	D		11,830	D	
	Lent Ranch Parkway to SR-99	D	6	11,577	A	9,983	A	13,075	A		12,143	A	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	25,007	A	19,129	A	26,116	A		20,729	A	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	4	24,150	B	18,474	A	25,259	C		20,074	A	
	Waterman Rd to Bradshaw Rd	D	2	**22,059**	**F**	**16,874**	**E**	**23,057**	**F**	+0.055	**18,314**	**F**	+0.08
	Bradshaw Rd to Wilton Rd	D	2	**18,200**	**F**	14,043	C	**19,087**	**F**	+0.049	15,323	D	
	Wilton Rd to Calvine Rd	D	2	**19,655**	**F**	14,762	D	**20,542**	**F**	+0.049	16,042	D	
	Calvine Rd to Jackson Rd	D	2	**18,580**	**F**	13,955	C	**19,467**	**F**	+0.049	15,235	D	
Dillard Road	SR-99 to Wilton Rd	D	2	4,741	C	3,633	C	4,741	C		3,633	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,965	D	8,321	D	9,965	D		8,321	D	
	Green Rd to Dillard Rd	D	2	3,791	C	3,292	B	3,791	C		3,292	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,129	C	3,754	C	4,129	C		3,754	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,089	B	2,077	B	2,089	B		2,077	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

Table 86 – Alternative F Roadway Segment Levels of Service (Cumulative)

Roadway	Segment Extents	Target LOS	No. Lanes	Without Project				With Project					
				Weekday		Saturday		Weekday			Saturday		
				ADT	LOS	ADT	LOS	ADT	LOS	Δ V/C	ADT	LOS	Δ V/C
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	D	4	25,055	B	14,261	A	25,055	B		14,261	A	
Twin Cities Road	West of SR-99	D	4	9,495	A	5,404	A	9,495	A		5,404	A	
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	D	2	509	A	571	A	509	A		571	A	
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	D	2	102	A	155	A	102	A		155	A	
Promenade Parkway	Kammerer Rd to Bilby Rd	D	6	30,240	A	16,374	A	41,046	C		31,963	A	
	Bilby Rd to Kyler Rd	D	4	22,460	B	12,162	A	22,748	B		12,578	A	
	Kyler Rd to Whitelock Pkwy	D	4	18,659	A	10,103	A	18,947	A		10,519	A	
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	D	6	33,258	B	28,678	A	34,756	B		30,838	A	
	Lent Ranch Parkway to SR-99	D	6	35,164	B	30,322	A	36,662	B		32,482	B	
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	D	6	46,681	D	35,709	B	48,345	D		38,109	C	
	E. Stockton Blvd/Survey Rd to Waterman Rd	D	6	42,180	C	32,266	A	43,844	D		34,666	B	
	Waterman Rd to Bradshaw Rd	D	6	31,207	A	23,872	A	32,760	B		26,112	A	
	Bradshaw Rd to Wilton Rd	D	4	25,593	C	19,747	A	27,035	C		21,827	B	
	Wilton Rd to Calvine Rd	D	4	26,566	C	19,953	A	28,008	C		22,033	B	
	Calvine Rd to Jackson Rd	D	4	20,920	A	15,712	A	22,362	B		17,792	A	
Dillard Road	SR-99 to Wilton Rd	D	2	5,441	C	4,170	C	5,441	C		4,170	C	
Wilton Road	Grant Line Rd to Green Rd	D	2	9,882	D	8,252	D	9,882	D		8,252	D	
	Green Rd to Dillard Rd	D	2	3,708	C	3,219	B	3,708	C		3,219	B	
Green Road	Wilton Rd to Project Alternative D/E access road	D	2	4,295	C	3,905	C	4,295	C		3,905	C	
	Project Alternative D/E access road to Dillard Rd	D	2	2,172	B	2,159	B	2,172	B		2,159	B	

Notes:
(1) Source of Level of Service Criteria: County of Sacramento, *Traffic Analysis Guidelines* , July 2004, Table 2-Level of Service Criteria for Roadway Segments.
(2) Change in roadway segment volume-to-capacity ratio (V/C) is calculated with the assumption that roadway segment capacity is equal to the County's LOS E threshold volume for each roadway facility type.
(3) Segments operating below established LOS target shown in **Bold**. Project impacts are shown in bold and highlighted.

As shown in the tables, project traffic will add traffic to several roadway segments and result in levels of service that exceed the established impact thresholds at the following location:

Near-Term (2018) Results

- Grant Line Road – Waterman Road to Bradshaw Road

It should be noted that there are additional locations where the project adds additional traffic to roadway segments that are projected to operate at unacceptable levels of service without the project; however, the V/C ratio increases by less than 0.05; thus, no project impact is identified.

10.9 Alternative F LOS Conditions and Impacts on Freeway and Ramps

Trips generated by the proposed project were added to the year 2018 and 2035 forecast freeway volumes.

Traffic analyses were completed to evaluate the operation of the study freeway segments and ramps in the year 2018 and 2035, with the addition on proposed project. As with the no project scenarios, freeway segment analyses were limited to the mix-use travel lanes which are expected to have significantly more congestion than the future HOV lanes.

Results of the near-term freeway mainline and ramp analyses are presented in **Table 87** and **Table 88**, respectively.

Table 87 – Alternative F Freeway Mainline Levels of Service (Near-Term)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	D	29.6	C	20.0	D	31.1	5.1%	C	21.1	5.5%
Between Walnut Avenue and Twin Cities Road	2	D	D	26.4	C	20.0	D	27.7	4.9%	C	21.1	5.5%
Between Twin Cities Road and Mingo Road	2	D	D	27.4	C	20.3	D	28.8	5.1%	C	21.3	4.9%
Between Mingo Road and Arno Road	2	D	D	27.6	C	20.3	D	29.0	5.1%	C	21.4	5.4%
Between Arno Road and Dillard Road	2	D	D	27.8	C	20.5	D	29.3	5.4%	C	21.6	5.4%
Between Dillard Road and Grant Line Road	2	D	C	24.3	C	21.7	C	25.6	5.3%	C	22.8	5.1%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.9	C	20.1	C	25.6	16.9%	C	23.0	14.4%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	22.1	C	19.7	C	23.7	7.2%	C	21.2	7.6%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	D	27.2	C	22.1	D	28.5	4.8%	C	23.1	4.5%
Between Walnut Avenue and Twin Cities Road	2	D	D	28.6	C	21.4	D	29.9	4.5%	C	22.3	4.2%
Between Twin Cities Road and Mingo Road	2	D	D	31.3	C	22.7	D	32.8	4.8%	C	23.8	4.8%
Between Mingo Road and Arno Road	2	D	D	31.3	C	22.8	D	32.9	5.1%	C	23.8	4.4%
Between Arno Road and Dillard Road	2	D	D	26.2	C	21.0	D	27.4	4.6%	C	22.0	4.8%
Between Dillard Road and Eschinger Road	2	D	C	25.2	C	21.6	D	26.4	4.8%	C	22.6	4.6%
Between Eschinger Road and Grant Line Road	2	D	C	24.5	C	21.1	C	25.6	4.5%	C	22.1	4.7%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	21.2	C	20.0	C	24.4	15.1%	C	23.1	15.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	C	23.5	B	14.3	C	25.4	8.1%	B	15.9	11.2%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *Traffic Data for High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 88 – Alternative F Freeway Ramp Levels of Service (Near-Term)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	34.2	D	26.7	C	**35.3**	**E**	3%	27.8	C	4.1%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	28.6	D	22.8	C	29.6	D	3.5%	23.8	C	4.4%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	30.2	D	23.9	C	31.2	D	3.3%	24.9	C	4.2%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	30.2	D	23.6	C	31.4	D	4.0%	24.8	C	5.1%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	29.4	D	23.0	C	30.4	D	3.4%	24.0	C	4.3%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	32.7	D	25.2	C	33.8	D	3.4%	26.3	C	4.4%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	34.4	D	27.6	C	**35.4**	**E**	2.9%	28.5	D	3.3%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	29.8	D	22.6	C	31.0	D	4.0%	23.8	C	5.3%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	31.7	D	25.1	C	32.8	D	3.5%	**37.9**	**E**	51.0%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	18.9	B	17.3	B	21.8	C	15.3%	20.1	C	16.2%
SR-99 NB On-Ramp (EB Loop)	D	Merge	17.8	B	17.3	B	20.4	C	14.6%	19.9	C	15.0%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	20.7	C	18.6	B	23.3	C	12.6%	21.2	C	14.0%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	19.6	B	23.6	C	4.0%	20.5	C	4.6%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

Results of the cumulative freeway mainline and ramp analyses are presented in **Table 89** and **Table 90**, respectively.

Table 89 – Alternative F Freeway Mainline Levels of Service (Cumulative)

Highway 99 Segment	No. Lanes	Target LOS	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	Δ Density (%)	LOS	Density (pc/mi/ln)	Δ Density (%)
Northbound												
Between Ayers Lane and Walnut Avenue	2	D	**E**	**39.1**	D	33.7	**E**	**41.3**	5.6%	**E**	**35.5**	5.3%
Between Walnut Avenue and Twin Cities Road	2	D	**E**	**38.9**	D	33.6	**E**	**41.3**	6.2%	**E**	**35.5**	5.7%
Between Twin Cities Road and Mingo Road	2	D	**E**	**45.0**	**E**	**35.2**	**F**	**48.1**	6.9%	**E**	**37.2**	5.7%
Between Mingo Road and Arno Road	2	D	**F**	**45.2**	**E**	**35.4**	**F**	**48.4**	7.1%	**E**	**37.5**	5.9%
Between Arno Road and Dillard Road	2	D	**F**	**46.1**	**E**	**38.2**	**F**	**49.3**	6.9%	**E**	**40.6**	6.2%
Between Dillard Road and Grant Line Road	2	D	**E**	**37.8**	**E**	**36.3**	**E**	**40.0**	5.8%	**E**	**38.4**	5.8%
Between Grant Line Road and Elk Grove Boulevard	2	D	**E**	**37.1**	D	33.5	**E**	**43.5**	17.3%	**E**	**38.9**	16.1%
Between Elk Grove Boulevard and Bond Road[1]	2	D	**E**	**35.9**	D	34.5	**E**	**39.0**	8.6%	**E**	**37.4**	8.4%
Southbound												
Between Ayers Lane and Walnut Avenue	2	D	**F**	**49.5**	**E**	**42.9**	**F**	**53.0**	7.1%	**F**	**45.6**	6.3%
Between Walnut Avenue and Twin Cities Road	2	D	**F**	**51.3**	**E**	**38.0**	**F**	**54.8**	6.8%	**E**	**40.0**	5.3%
Between Twin Cities Road and Mingo Road	2	D	**F**	**53.6**	**E**	**42.8**	**F**	**57.5**	7.3%	**F**	**45.4**	6.1%
Between Mingo Road and Arno Road	2	D	**F**	**53.8**	**E**	**42.9**	**F**	**57.7**	7.2%	**F**	**45.5**	6.1%
Between Arno Road and Dillard Road	2	D	D	27.5	C	24.7	D	28.8	4.7%	C	25.9	4.9%
Between Dillard Road and Eschinger Road	2	D	D	29.0	C	25.8	D	30.4	4.8%	D	27.0	4.7%
Between Eschinger Road and Grant Line Road	2	D	C	24.8	C	23.0	C	25.9	4.4%	C	24.1	4.8%
Between Grant Line Road and Elk Grove Boulevard	2	D	C	24.2	C	23.3	C	27.9	15.3%	D	26.9	15.5%
Between Elk Grove Boulevard and Bond Road[1]	2	D	D	26.9	C	21.8	D	29.0	7.8%	C	23.5	7.8%

(1) Where HOV lanes exist (NB and SB starting just south of Elk Grove Boulevard and extending north), the freeway segment analysis is limited to general purpose (mixed-flow) travel lanes only, which are expected to have significantly more congestion than the HOV lanes. HOV lanes are estimated to carry aproximately 30% of the total mainline volume per Caltrans' *District 3 High Occupancy Vehicle Lanes Status Report, Sacramento Metropolitan Area* (2011).

Table 90 – Alternative F Freeway Ramp Levels of Service (Cumulative)

Interchange Location	Target LOS	Junction Type	Without Project				With Project					
			Weekday		Saturday		Weekday			Saturday		
			Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Δ Density (%)	Density (pc/mi/ln)	LOS	Δ Density (%)
SR 99 Ramps at Twin Cities Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**42.9**	**F**	**39.1**	**E**	**45.8**	**F**	7%	**41.9**	**F**	7.2%
W Stockton Boulevard/SR-99 SB On-Ramp (north)	D	Merge	**36.8**	**E**	33.9	D	**39.2**	**F**	6.5%	**36.2**	**E**	6.8%
W Stockton Boulevard/SR-99 SB On-Ramp (south)	D	Merge	**39.3**	**F**	34.6	D	**41.8**	**F**	6.4%	**37.0**	**E**	6.9%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**37.3**	**E**	34.3	D	**39.8**	**E**	6.7%	**37.0**	**E**	7.9%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**37.3**	**E**	33.3	D	**39.7**	**F**	6.4%	**35.4**	**E**	6.3%
SR 99 Ramps at Mingo Road												
W Stockton Boulevard/SR-99 SB Off-Ramp	D	Diverge	**43.2**	**F**	**39.3**	**E**	**44.3**	**F**	2.5%	**40.4**	**F**	2.8%
W Stockton Boulevard/SR-99 SB On-Ramp	D	Merge	**43.9**	**F**	**40.3**	**E**	**44.9**	**F**	2.3%	**41.3**	**F**	2.5%
E Stockton Boulevard/SR-99 NB Off-Ramp	D	Diverge	**40.3**	**E**	**35.5**	**E**	**41.5**	**F**	3.0%	**36.7**	**E**	3.4%
E Stockton Boulevard/SR-99 NB On-Ramp	D	Merge	**41.2**	**F**	**36.9**	**E**	**42.3**	**F**	2.7%	**37.9**	**E**	2.7%
SR 99 Ramps at Grant Line Road												
SR-99 NB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 NB On-Ramp (WB Right)	D	Merge	29.4	D	28.1	D	32.7	D	11.2%	30.9	D	10.0%
SR-99 NB On-Ramp (EB Loop)	D	Merge	27.6	C	27.6	C	30.2	D	9.4%	30.2	C	9.4%
SR-99 SB Off-Ramp	D	Diverge	<5	A	<5	A	<5	A	-	<5	A	-
SR-99 SB On-Ramp (WB Loop)	D	Merge	18.2	B	18.7	B	20.8	C	14.3%	21.3	C	13.9%
SR-99 SB On-Ramp (EB Right)	D	Merge	22.7	C	21.3	C	23.6	C	4.0%	21.6	C	1.4%

Notes:
1. NB = Northbound; SB = Southbound; EB = Eastbound; WB = Westbound

As shown in the table, project traffic will add to the background congestion of the freeway mainline and ramps. There are mainline segment and ramp locations that will operate at unacceptable LOS as a result of the project, or will operate at unacceptable LOS without the project and experience an increase in density of more than five percent (5%) with the addition of the project. Significant congestion is expected with and without the project.

10.10 Alternative F Mitigations

Intersection and Roadway Impact Mitigation Recommendations

Intersections and roadways with levels of service below established thresholds were investigated to determine the role of the Alternative F traffic in the projected operating conditions at those locations. The evaluation disclosed that the following improvements as shown on **Table 91** are needed in the near-term (2018) and long-term (2035) to mitigate project impacts.

Table 91 – Alternative F Summary of Mitigations

Near-Term Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	No mitigation necessary	-	-
11	Promenade Parkway/Kammerer Rd	No mitigation necessary	-	-
12	Promenade Parkway/Bilby Rd	• Widen WB approach to provide three left-turn lanes, one through lane and one right-turn lane. • Provide NB right-turn overlap signal phase during WB left-turn phase.	Yes	• Capacity • Queuing
13	Grant Line Rd/E Stockton Blvd	No mitigation necessary	-	-
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	No mitigation necessary	-	-
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	No mitigation necessary	-	-
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 91 – Alternative F Summary of Mitigations (cont.)

Cumulative Intersection Mitigations

#	Intersection	Mitigation	Requires ROW?	Reason
1	W Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
2	E Stockton Blvd/Twin Cities Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
3	Twin Cities Rd/Fermoy Way	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
4	Twin Cities Rd/Carillon Blvd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
5	Twin Cities Rd/Marengo Rd	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
6	Twin Cities Rd/Cherokee Ln	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
9	SR-99 NB Ramps/Grant Line Rd	No mitigation necessary	-	-
10	SR-99 SB Ramps/Grant Line Rd	• Widen SB approach to provide one left-turn lane, one shared left/through/right, and two right-turn lanes.	Yes	• Capacity • Queuing
11	Promenade Parkway/Kammerer Rd	• Optimize signal timings. • Reduce width of raised median at the WB approach to provide a second left-turn lane. • Provide NB right-turn overlap signal phase during WB left-turn phase.	No	• Capacity • Queuing
12	Promenade Parkway/Bilby Rd	• Widen WB approach to provide three left-turn lanes, one through lane and one right-turn lane. • Provide NB right-turn overlap signal phase during WB left-turn phase.	Yes	• Capacity • Queuing
13	Grant Line Rd/E Stockton Blvd	• Restripe SB approach to one left-turn lane, one shared through/right, one right-turn lane. • Convert NB/SB signal phasing from split to protected left-turn phasing. • Implement traffic signal coordination at this intersection to improve progression along Grant Line Rd with adjacent signalized intersections during weekday PM peak period.	No	• Capacity
14	Grant Line Rd/Bond Rd	No mitigation necessary	-	-
15	Grant Line Rd/Sheldon Rd	No mitigation necessary	-	-
16	Wilton Rd/Green Rd	No mitigation necessary	-	-
17	Grant Line Rd/Wilton Rd	No mitigation necessary	-	-
18	Wilton Rd/Dillard Rd	No mitigation necessary	-	-
19	Wilton Rd/Cosumnes Rd	No mitigation necessary	-	-
20	Green Road/Project Driveway 1	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
21	Green Road/Project Driveway 2	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		
22	Green Road/Project Driveway 3	NOT STUDIED IN FOR THIS PROJECT ALTERNATIVE		

Table 91 – Alternative F Summary of Mitigations (cont.)
Near-Term Roadway Mitigations

Roadway	Segment Extents	Mitigation	Requires ROW	Reason
Twin Cities Road (SR-104)	Fermoy Way to Merango Road	No mitigation necessary	-	-
Twin Cities Road	West of SR-99	No mitigation necessary	-	-
E Stockton Boulevard	SR-99 NB on-ramp to Mingo Rd	No mitigation necessary	-	-
W Stockton Boulevard	SR-99 SB off-ramp to SR-99 SB ramps near Mingo Road	No mitigation necessary	-	-
Promenade Parkway	Kammerer Rd to Bilby Rd	No mitigation necessary	-	-
	Bilby Rd to Kyler Rd	No mitigation necessary	-	-
	Kyler Rd to Whitelock Pkwy	No mitigation necessary	-	-
Kammerer Road	Bruceville Rd to Lent Ranch Pkwy	No mitigation necessary	-	-
	Lent Ranch Parkway to SR-99	No mitigation necessary	-	-
Grant Line Road	SR-99 to E. Stockton Blvd/Survey Rd	No mitigation necessary	-	-
	E. Stockton Blvd/Survey Rd to Waterman Rd	No mitigation necessary	-	-
	Waterman Rd to Bradshaw Rd	• Widen Grant Line Rd to four lanes from Waterman Rd to Bradshaw Rd	Yes	• Capacity
	Bradshaw Rd to Wilton Rd	No mitigation necessary	-	-
	Wilton Rd to Calvine Rd	No mitigation necessary	-	-
	Calvine Rd to Jackson Rd	No mitigation necessary	-	-
Dillard Road	SR-99 to Wilton Rd	No mitigation necessary	-	-
Wilton Road	Grant Line Rd to Green Rd	No mitigation necessary	-	-
	Green Rd to Dillard Rd	No mitigation necessary	-	-
Green Road	Wilton Rd to Project Alternative D/E access road	No mitigation necessary	-	-
	Project Alternative D/E access road to Dillard Rd	No mitigation necessary	-	-

The most significant components of the Alternative F mitigations are improvements to the primary project access driveway at Promenade Parkway/Bilby Road. Although the existing intersection was designed to accommodate the future traffic demand associated with significant planned growth within this portion of the City of Elk Grove, including traffic associated with the previously approved Promenade development, this location is projected to operate at unacceptable levels of service with the addition of the proposed project. The proposed mitigation measures include widening of the westbound intersection approach to provide three left-turn lanes egressing the site and a right-turn overlap signal phase for the northbound right-turn movement ingressing the site.

The traffic analysis results indicate that the project is projected to impact several mainline segments along SR-99 and ramps at the Twin Cities interchange, particularly for cumulative (2035) conditions when background congestion increases significantly along mainline SR-99. While reconstruction of the Mingo Road interchange would be expected to relieve some or the project's contribution towards congestion at the Twin Cities interchange, the project's impacts to other facilities will remain significant. As mitigation for impacts to freeway facilities, the project should do the following:

- Contribute a fair-share funding proportion towards future freeway improvement projects along SR-99, to be identified through coordination with Caltrans. Caltrans is currently working with the City of Elk Grove to establish a subregional mitigation fee program which would cover this portion of the SR-99 corridor. The program is anticipated to be adopted in late 2015 and currently includes several transit projects and other improvements that could help improve traffic operations along SR-99 and improve alternative transportation options for residents and employees in the area.
- Because this program has yet to be adopted, the ultimate fee structure for development project contribution has yet to be confirmed. For reference purposes, the project's fair-share contribution towards future mitigation costs for SR-99 freeway improvements within the vicinity of the proposed project would be 26% based on standard Caltrans methodology for calculating equitable mitigation measures

Table 92 and **Table 93** summarize the expected intersection levels of service with the proposed mitigation measures.

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Table 92 – Alternative F Mitigated Intersection Levels of Service (Near-Term)

#	Intersection	LOS Target	Existing				Near-Term (2018)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	10.6	A	6.8	B	13.0	A	8.9	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	A	6.3	A	6.6	B	10.5	B	14.8	-	-	-	-
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	C	23.1	B	19.7	D	40.0	C	22.3	-	-	-	-
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	20.7	C	34.5	C	32.9	**F**	**211.9**	C	24.3	C	22.6
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**E**	**55.7**	C	28.2	**E**	**57.3**	C	28.8	-	-	-	-
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	22.9	B	19.2	C	23.7	C	20.7	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	19.8	B	11.4	C	20.8	B	11.8	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	11.1	A	8.8	B	11.2	A	8.9	-	-	-	-
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	50.9	C	23.5	D	53.4	C	25.2	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.0	A	7.4	A	8.1	A	7.4	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	15.4	B	11.9	C	15.5	B	12.0	-	-	-	-
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															

Table 93 – Alternative F Mitigated Intersection Levels of Service (Cumulative)

#	Intersection	LOS Target	Existing				Cumulative (2035)											
							Without Project				With Project				Mitigated			
			PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak		PM Peak		SAT Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
1	W Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
2	E Stockton Blvd/Twin Cities Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
3	Twin Cities Rd/Fermoy Way	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
4	Twin Cities Rd/Carillon Blvd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
5	Twin Cities Rd/Marengo Rd	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
6	Twin Cities Rd/Cherokee Ln	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
7	W Stockton Blvd/SR-99 SB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
8	E Stockton Blvd/SR-99 NB Ramps (at Mingo Rd)	D	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
9	SR-99 NB Ramps/Grant Line Rd	D	A	9.0	A	6.5	B	16.6	B	12.4	C	26.3	C	20.9	-	-	-	-
10	SR-99 SB Ramps/Grant Line Rd	D	B	13.0	A	7.7	B	18.3	B	14.5	**E**	**65.3**	D	47.0	D	44.3	C	27.5
11	Promenade Parkway/Kammerer Rd	D	B	19.0	B	15.2	**F**	**87.5**	D	48.4	**F**	**127.6**	**F**	**127.1**	**E**	**59.7**	D	47.6
12	Promenade Parkway/Bilby Rd	D	A	7.7	A	1.5	C	34.8	D	41.1	**F**	**286.9**	**F**	**847.7**	D	54.6	D	36.2
13	Grant Line Rd/E Stockton Blvd	D	D	42.2	C	25.2	**F**	**117.6**	D	45.4	**F**	**126.1**	**D**	**47.0**	**F**	**84.8**	D	42.6
14	Grant Line Rd/Bond Rd	D	C	21.5	B	17.5	C	24.4	B	18.6	C	24.2	B	19.4	-	-	-	-
15	Grant Line Rd/Sheldon Rd	D	**E**	**45.7**	B	12.0	B	14.4	B	11.3	B	15.1	B	11.5	-	-	-	-
16	Wilton Rd/Green Rd	D	B	10.9	A	8.7	B	12.2	A	9.2	B	12.3	A	9.3	-	-	-	-
17	Grant Line Rd/Wilton Rd	D	D	41.4	C	21.5	D	45.3	C	21.7	D	45.8	C	22.7	-	-	-	-
18	Wilton Rd/Dillard Rd	D	A	8.0	A	7.4	A	8.5	A	7.7	A	8.5	A	7.7	-	-	-	-
19	Wilton Rd/Cosumnes Rd	D	B	15.0	B	11.7	C	17.5	B	12.6	C	17.7	B	12.7	-	-	-	-
20	Green Road/Project Driveway 1	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
21	Green Road/Project Driveway 2	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															
22	Green Road/Project Driveway 3	-	NOT STUDIED FOR THIS PROJECT ALTERNATIVE															

As noted in the tables, with the recommended mitigation measures, all study intersections would operate at acceptable levels of service or at reduced levels where the project traffic would not exceed the established thresholds of significance. The Promenade Parkway/Kammerer Road and Grant Line Road/East Stockton Boulevard intersections would continue to operate at unacceptable LOS after mitigation for 2035 weekday PM peak conditions, but the average control delay would be reduced to below conditions without the project.

In addition, the recommended roadway mitigation measures would result in acceptable levels of service for impacted roadway segments.

Impacts to Rural/Substandard County Roadways

The County of Sacramento has requested that the proposed project contribute towards improvements for rural roadways where the project is anticipated to add significant traffic to roads with poor pavement quality and/or substandard design. Kammerer Road from SR-99 to Bruceville Road currently has no shoulders. The project is anticipated to add up to 1,500 daily trips along this segment, which represents about a 13 percent increase over the projected near-term daily traffic levels. As part of the Capital SouthEast Connector Project, future widening is planned for Kammerer Road, as well as an ultimate connection between I-5 and SR-99. The project's fair-share contribution towards future mitigation costs for Kammerer Road improvements would be 6% based on standard Caltrans methodology for calculating equitable mitigation measures

Multimodal Impact Mitigation Recommendations

The project was evaluated to determine if it would likely conflict with existing or planned bicycle and pedestrian systems. There are existing sidewalks and bike lanes within the vicinity of the proposed project site and the proposed project is not anticipated to inhibit access to or eliminate any existing facilities, nor would the project prevent the implementation of any planned facilities. The project would be responsible for providing on-site pedestrian facilities to facilitate pedestrian movement within the project site.

Because no fixed route transit service will be available at the project site, the casino and hotel should provide a shuttle that provides service to locations with connections to existing transit services in the City of Elk Grove. The shuttle could run throughout the day or could be called out on demand. An additional option is for the project applicant to coordinate with the local transit provider (e-tran) to explore the potential to modify existing bus routing to serve the proposed project site and planned outlet mall. A third option: the project proponents could pay a fair-share towards the high-frequency bus service currently listed as a planned future project for the City of Elk Grove in the 2035 SACOG MTP/SCS.

10.11 Alternative F VMT

Planning-level estimates of the average Weekday and Saturday daily Vehicle Miles Traveled (VMT) were developed for the proposed project. For this analysis, VMT was

calculated by multiplying the estimated average one-way trip length for trips generated by the project by the total daily vehicular trip generation. Average one-way trip lengths were estimated using the process described previously for developing the project trip distribution assumptions. As described previously in the trip distribution discussion, the project trip distribution estimates were developed using a basic gravity model and reflect the proportion of project trips anticipated to travel to/from various cities and communities in the region. The average trip length was estimated by identifying the one-way trip distance to the various geographic market areas, tabulating the average percent of total trips traveling to/from each market area, and calculating the average weighted trip length for all patrons. For the purposes of this assessment, only primary trips are reflected in the project VMT estimates. Diverted-link trips were excluded from the VMT totals.

The calculated daily VMT generated by Project Alternative F is summarized in **Table 94**.

Table 94 – Alternative F VMT

Alternative F - Casino Resort at Mall Site							
Market Area/Region	**Population Centers**	**% Trip Distribution**	**Average One-Way Trip Length (mi)**	**Weekday Daily Trip Generation**	**Weekday Daily VMT**	**Saturday Daily Trip Generation**	**Saturday Daily VMT**
South	Lodi, Stockton, Tracy, Modesto, San Francisco Bay Area	33%	29.2	11,093	323,916	16,003	467,288
North/Northwest	Elk Grove, Sacramento, Yolo County, Solano County, Napa County	51%					
East/Northeast	Rancho Cordova, Arden-Arcade, Citrus Heights, Folsom, Placer County	16%					

10.12 Alternative F Construction Traffic Impacts

Impacts resulting from the construction of Alternative F would be temporary in nature. Construction activity impacts would be concentrated on Promenade Parkway in the immediate vicinity of the site. Traffic-related construction impacts typically experienced may include traffic delays, one-way traffic control, temporary road closures, and traffic detours. The construction traffic impact would represent a temporary and less than significant inconvenience to travelers on affected roadways and area residents. However, this level of truck traffic may have an impact on quality of life including increased noise, visual impact, and a perception of lower traffic safety. Tracking of debris and mud onto roadways may create a perceptual impact as well as a physical impact. Recommended mitigation measures to minimize the impacts associated with construction include:

- A traffic management plan should be prepared in accordance with standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways (USDOT FHWA, 2003). The traffic management plan shall be submitted to each affected local jurisdiction and/or agency. Also, prior to construction, the project applicant shall work with emergency service providers to avoid obstructing emergency response service. Police, fire, ambulance, and other emergency

response providers shall be notified in advance of the details of the construction schedule, location of construction activities, duration of the construction period, and any access restrictions that could impact emergency response services. Traffic management plans shall include details regarding emergency service coordination. Copies of the traffic management plans shall be provided to all affected emergency service providers.

- Flagging done in consultation with the California Highway Patrol (CHP), Caltrans and the County Sheriff's Department, should be provided when necessary to assist with construction traffic control.
- Transport of construction material should be scheduled outside of the area-wide commute peak hours.
- Where feasible, lane closures or obstructions associated with construction of the project should be limited to off-peak hours to reduce traffic congestion and delays.

Note: Due to its length, the Traffic Impact Study Appendix is available on a CD upon request.